## SWAMI VIVEKANANDA UNIVERSITY

ANNUAL REPORT Session: (2024-2025)

#### **DISCLAIMER**

While every effort has been made to ensure the accuracy and currency of the information provided in this report, Swami Vivekananda University reserves the right to modify any part of this report as necessary to address errors, omissions, inconsistencies, or regulatory requirements. Such changes, determined by University Authorities, may affect both prospective and enrolled students. Please note that the information presented in this brochure is subject to change without prior notice. It is intended solely as a general reference guide about the University's academic updates.

#### **About Us:**

Swami Vivekananda University (SVU) has emerged as a premier institution in West Bengal since its establishment in 2019 under the Regent Education and Research Foundation (RERF). As part of the esteemed Swami Vivekananda Group of Institutes, SVU offers a wide array of programs spanning science, engineering, technology, management, and more, aligning with Swami Vivekananda's vision of holistic education. SVU's mission is to fuse Eastern values with Western knowledge, emphasizing character building alongside academic excellence. The university is committed to innovation and entrepreneurship, echoing the aspirations of its Hon'ble Chairman for excellence in education.

Formally recognized by the State Legislature of West Bengal and accredited by the University Grants Commission (UGC), SVU upholds rigorous quality standards through its Internal Quality Assurance Cell (IQAC). Located in Barrackpore, SVU's sprawling 12-acre green campus boasts state-of-the-art facilities, including smart classrooms, well equipped laboratories, a central library with an extensive collection, and recreational amenities like a gymnasium and swimming pool. With over 2000 students enrolled across various programs and a focus on industry-relevant curriculum, SVU is poised to excel as a center of academic excellence and innovation.

In defining our mission, vision, and goals, we lay the foundation for our organization's purpose, direction, and aspirations. These guiding principles serve as the compass that steers our actions, shapes our decisions, and fuels our collective efforts toward meaningful impact and sustainable growth. Through clarity of purpose and steadfast commitment, we endeavor to inspire, innovate, and make a positive difference in the world we serve.

#### **VISION**

To transform the University into a globally recognized institute of excellence with tripartite wellspring relational objectives centered on learning, innovation, and entrepreneurship.

#### **MISSION**

- As a skill-oriented university, to instill skills in every student for their growth and sustainability.
- To prepare students as the next generation of leaders with human values and social responsibilities.
- To create an innovative, learning-centric environment with optimal knowledge transfer.
- To escalate innovation, startups, and entrepreneurship towards self-reliance.

#### **GOAL**

Driven by a commitment to **excellence**, **innovation**, **and entrepreneurship**, our overarching goals embody our dedication to fostering a dynamic learning environment, empowering students to thrive as creative thinkers, problem-solvers, and leaders in their respective fields.

"Act on the educated young men, bring them together, and organise them." -Swami Vivekananda

#### MESSAGE FROM THE CHANCELLOR'S DESK

The world as we know now and as we knew back in 20th century has changed tremendously. The upcoming of life changing technologies and different fields that are now open to academic research and employment as made one thing sure that knowledge will be the key to everything that has to come and will be highly sought after has it has the power to change anything and everything . We believe that Education is not preparation for life. Education is life itself. We believe that in professional as well as personal life that we all have, we have to learn how to educate ourselves always, develop and evolve ourselves in a better way. We have to learn how to be responsible towards the society in which we live and to promote it towards growth. At SVU, we not only promote the evolution of individual but also the growth of society as a whole.

At Swami Vivekananda University, We Believe Education Is Life Itself. We Foster Individual And Societal Growth Through Continuous Learning, High Moral Values, And Creativity. By Providing The Right Environment And State-Of-The-Art Facilities, We Ensure Our Students Excel, And In Turn, We Excel With Them.

We have to realize that education alone is not sufficient and so we train our students in regions of respect for the society, Having High Morales, Personality Development, Creativity etc. These are some things which are very important in long run. We realize that right environment is equally important in making a student learn and grow and so at SVU we aim at creating that right environment for students by giving them the proper facilities they need to grow. We also regularly tie up with industries and companies to provide our students with excellent opportunities to work and learn with industry experts. We leave no stone unturned when it comes to providing the state-of-the-art Education to our students. As we believe that when our students excel, we excel.

Dr. Nandan Gupta Hon'ble Co-Chancellor Swami Vivekananda University

#### MESSAGE FROM THE CO-CHANCELLOR'S DESK

It gives me immense pride and joy to address you through this brochure as a CO-Chancellor of Swami Vivekananda University, Barrackpore. Edu- cation, to us, is not merely a preparation for life – it is life itself. At SVU, we deeply believe that every student carries within them infinite potential, and it is our duty to nurture, guide, and inspire them to discover it. In today's world, change is the only constant. With the rapid rise of technology, global connectivity, and innovative industries, the challenges before our youth are both complex and demanding. In such an environment, knowledge alone is not sufficient. What matters equally is character, responsibility, adaptability, and creativity. At SVU, we integrate these qualities into our teaching, so that our students evolve into balanced individuals who can confidently face real-life situations.

We are proud that our University goes beyond conventional teaching. Through industry collaborations, skill development programs, and creative opportunities, our students are trained not just to secure jobs but to create opportunities for others. We encourage them to take pride in Indian values, respect society, and contribute positively wherever they go.

As a trustee, I firmly believe that the strength of a university lies in the growth of its students. Our constant effort is to create an environment where every learner feels empowered, supported, and motivated to achieve excellence. With the blessings of Swami Vivekananda's vision and the dedication of our faculty, we are confident that SVU will continue to shine as a hub of knowledge and human development.

Dr. Rakesh Binaykia Hon'ble Co-Chancellor Swami Vivekananda University

#### MESSAGE FROM HE TRUSTEE MEMBER'S DESK

Swami Vivekananda University, Barrackpore, is not just an institution of higher learning; it is a mission dedicated to building responsible citizens and future leaders. As a trustee, I feel honored to contribute to this noble journey of education and empowerment.

We strongly believe that the purpose of education is not only to acquire degrees but also to develop the mind and enrich the soul. Our aim is to produce individuals who are intellectually strong, morally upright, and socially responsible. Education must prepare our students to lead with compassion, integrity, and innovation – qualities that are essential in today's fast-changing world.

At SVU, equal importance is given to academics, creativity, research, and values. We understand that a student's growth is complete only when knowledge is combined with character. Therefore, we emphasize personality development, high morals, leadership training, and industry readiness. By connecting our students with companies, research centers, and social initiatives, we ensure that they are exposed to the best opportunities for growth and contribution.

As trustees, we are committed to leaving no stone unturned in providing world-class infrastructure, skilled faculty, and enriching experiences. Our vision is clear – to make SVU a place where dreams are shaped into realities, where students excel not just in examinations but in every aspect of life.

We invite every aspiring learner to be part of this journey, where education becomes a celebration of life.

Dr. Ashok Binaykia Hon'ble Trustee Member Swami Vivekananda University

#### MESSAGE FROM THE TRUSTEE MEMBER'S DESK

The world of the 21st century is a place of rapid change and endless possibilities. In such times, education must go beyond traditional learning to prepare students for leadership in every sphere of life. At Swami Vivekananda University, Barrackpore, we are committed to shaping individuals who are not only well-informed but also well-formed. As a trustee, I am proud that our university draws inspiration from the timeless teachings of Swami Vivekananda, who believed that "education is the manifestation of perfection already in man." Guided by this philosophy, we strive to create an atmosphere where every student discovers their true potential and uses it for the betterment of society.

We believe that the strength of a nation lies in the strength of its youth. Hence, our mission at SVU is to empower students with knowledge, skills, values, and vision. We encourage innovation, research, and critical thinking while also instilling discipline, respect, and social responsibility. Our focus is holistic development – blending academics with sports, arts, and community service.

Industry collaboration is another cornerstone of our approach. By partnering with companies, startups, and research organizations, we ensure that our students are well-prepared to meet global challenges. They are trained to adapt, to innovate, and to contribute meaningfully to the nation and the world.

As trustees, we pledge our continued dedication to excellence. With modern facilities, committed faculty, and a student-centered environment, SVU is destined to become a beacon of learning and growth. Together, let us work to uphold the values of knowledge, service, and innovation, ensuring that every graduate of this university stands as a proud representative of our shared vision.

Mr. Chandan Gupta Hon'ble Trustee Member Swami Vivekananda University

#### MESSAGE FROM THE CHIEF OPERATING OFFICER'S DESK

It is a great privilege and honour to be a part of the mission to make "Swami Vivekananda University" a name to reckon within the academic fraternity by giving a strong impetus to creating an environment of knowledge, application and holistically inspiring youth to become leaders of tomorrow. I believe that the rigours of the contemporary world will require knowledgeable professionals who could withstand the dynamics of the fast -changing world. It is a great privilege and honour to be a part of the mission to make "Swami Vivekananda University" a name to reckon within the academic fraternity by giving a strong impetus to creating an environment of knowledge, application and holistically inspiring youth to become leaders of tomorrow. I believe that the rigours of the contemporary world will require knowledgeable professionals who could withstand the dynamics of the fast-changing world. Hence "Making a Difference in the Life of Every Student" is the Priority of my administration. We look forward to a deep engagement with Students, Industry, Faculty, and Community to position Andhra university as the national leader in delivering value to its students and offering a transformative educational and life experience. The COO's office works collaboratively across the University to ensure that every student has the best possible education and experience. We aim to position our university as a national leader in delivering transformative education, preparing students to excel in a fast-changing world.

In the journey, there will be tough times and there will be easier ones, but we shall work hard with no regrets, and be victorious. The University faculty are here to be the mentors and facilitators to help the students in all round progress. The parents are here to understand the strength and weaknesses of their wards and encourage them, in choosing a study of their passion. The students are here to understand that the rules and regulations in the university are put in a place to help them in achieving dreams. There must be an aspiration to excel and serve the society, and hence there must be measuring standards. We the faculty and students as a University must excel and set standards to impact society and future generations. Let's move ahead with a clear line of action to excel in academics, fortify our research initiatives through quality publications, strengthened industry – institute interactions, product development, Start-Up ventures and honestly contributing for the upliftment and growth of people and humanity at large. Our challenge is to help to generate ideas that will benefit society, and to educate and train people to work in fields where they will be valued both for their knowledge, and for their ability to research, communicate and solve problems. I offer my best wishes to all students, faculty and staff to grow and excel in this challenging and competitive era and reach the pinnacle of success.

Mr. Saurabh Adhikari Hon'ble Chief Operating Officer Swami Vivekananda University

#### MESSAGE FROM VICE CHANCELLOR'S DESK

It's indeed a privilege to be at the forefront of an emerging university, our SVU. It is a matter of pride and satisfaction that ever since the inception in 2020, SVU has been striving for excellence in Higher Education, Research and Extension activities. Gratitude to the guidance of Hon'ble Chancellor and thanks to the efforts of our Colleagues for flourishing the University's Undergraduate, Postgraduate, and Doctoral Programmes in the areas of Engineering, Management, Agriculture, Computer Science, Life Sciences, Allied Health Science, Humanities and Social Sciences.

Our research programs range across all disciplines and total commitment is essential to achieve the goals. As we look to the future, one thing is certain - technology and knowledge will be key resources, most sought after within the country and around the world. Therefore, it is our paramount duty to help generate ideas that will benefit society, and to educate and train people to work in fields where they will be valued for their specialized knowledge.

## "ALONE WE CAN DO SO LITTLE, TOGETHER WE CAN DO SO MUCH." -Helen Keller

Our acumen to research, communicate and solve issues is to be improved upon from time to time. To meet these challenges, alliances with research institutions, partnership with Government and other agencies are to be undertaken expeditiously. We should leave no stone unturned to ensure the quality of our academic programs and excellence of our teaching, learning and research.

This is the byproduct of dedication and concerted efforts from all corners. In the rapidly evolving society of today, it has become more important than ever for the University to adapt, evolve and be the cornerstone of creating knowledge. The excellence of the University has always come from the individual strengths of our extremely diverse members. With many more miles to go, let us shoulder the responsibility and work together to take this institution to greater heights.

In the words of Helen Keller, "Alone we can do so little, together we can do so much."

Dr. Subrata Kumar Dey Hon'ble Vice Chancellor Swami Vivekananda University

#### MESSAGE FROM REGISTRAR'S DESK

We have pleasure in welcoming you to Swami Vivekananda University, Barrackpore. The University is striving hard to have qualitative improvement in the level of education, environment and economy of this region. The university has a visionary mission to contribute in multidimensional growth and development of the region in general and holistic development of the students in particular. We hope that the inspiring students, under the guidance of dedicated teachers and a far-sighted leadership of the top administration would lead this University to a coveted and recognized position in the galaxy of higher education in the country.

Swami Vivekananda University's aspiration is to be a world class centre of excellence in training, research and innovation in cutting edge technologies. We are in the sincere process of creating a positive image whereby our name becomes synonymous with excellence, innovation, honour, integrity and outstanding quality and service. Always we will keep our vision goal focused ensuring to reach greater heights in the days ahead. As we embark on developing the University, all the dedicated personnel at SVU need to be unswerving in defending our vision. We are dedicated to creating a positive impact and preparing graduates to excel as professionals and responsible citizens.

We shall focus on the individuals' strengths and use their strengths in a very goal-directed niche within our institution.

The University offers an array of subjects that cater to the capabilities of different individuals at various levels of education.

Our primary objective is to enrich and support the individual in his/her endeavour towards the attainment of knowledge and wisdom, as well as to apply that knowledge in coherence with the aims and ambitions of the individual in particular and for the greater good of human kind in general. Industries and renowned institutions are always welcome to collaborate for R & D activities with faculty members and research scholars. As regards to the students who are our main stakeholders, we look forward to a healthy working relationship where dialogue becomes the pillar of our understanding. We remain open to your deserved needs and not demands and our focus will be to make you all-round graduates ready for the market and responsible citizens of this great country.

I assure you the best possible academic, administrative and research atmosphere in the campus.

Prof. (Dr.) Pinak Pani Nath Hon'ble Registrar Swami Vivekananda University

### **Department of Biotechnology**

#### **Brief Details About The Department**

Biotechnology has emerged as one of the fastest-growing fields of modern science, integrating biology with technology to address global challenges in healthcare, agriculture, industry, and environment. From genetic engineering and molecular diagnostics to biopharmaceutical development and industrial bioprocessing, biotechnology provides tools to improve quality of life and sustainability. Swami Vivekananda University offers undergraduate and postgraduate programs in Biotechnology designed to prepare students as skilled professionals capable of contributing to cutting-edge research, innovation, and industry needs. The curriculum blends theoretical knowledge with practical exposure to laboratory techniques, bioinformatics, and real-world applications. Focus areas include molecular biology, genetic engineering, microbial technology, immunology, plant and animal biotechnology, bioinformatics, and bioprocess engineering. With an emphasis on interdisciplinary learning, students are trained to meet global quality standards and compete in both research and industrial sectors.

#### **Courses Offered:**

- 1. B.Sc. In Biotechnology (
- 2. M.Sc. In Biotechnology
- 3. Ph.D. In Biotechnology

#### **Faculty Details:**

Name of the Teacher	Specialization
Dr. Pijush Mallick	Agriculture Biotechnology
Dr Semanti Ghosh	Protein structure function relationship, Computer- aided drug discovery, Molecular Dynamics study, Structural bioinformatics, Computational Biology.
Dr Bidisha Ghosh	Nano-Sensing, Nano-Ligand Interaction
Dr. Sibashish Bakshi	Bioenergy, Fermentation Technology
Dr Sabyasachi Ghosh	Environmental Nano Biotechnology
Dr. Mainak Mukhopadhayay	Enzymology
Dr. Srijan Haldar	Enzymology, Industrial Biotechnology
Dr. Santanu Paul	Cell Biology, Cancer Stem Cell
Dr Priyankar Pal	Environmental Toxicology And Physiology
Dr. Aroni Chatterjee	Medical Biotechnology

Dr Debjit De	Host Microbiome Interaction, Host Disease, NGS Data Analysis, Metagenomics, Genomics, Meta- Analysis, Biostatistics
Dr Priyajit Banerjee	Drug Discovery and Protein Engineering
Dr Samudra Pal	Human Genetics
Dr Palash Kumar Pal	Eco-toxicology and Environmental Endocrinology
Mr. Susovan Jana	Structural bioinformatics, Computational Biology.

#### **External Members On The Board Of Studies:**

Sl. No.	Name of the Members	Designation of The Members
1.	DR. SUBHAJIT SAHA	Assistant Professor, Department of Zoology, University of Burdwan
2.	PROF. (DR.) ARIJIT BHATTACHARYA	Professor & Head, Department Of Biological Sciences, Adamas University
3.	PROF. (DR.) KOUSHIK PRAMANICK	Professor & Head, Integrative Biology Research Unit, Department of Life Sciences, Presidency University

#### **Publications Details (Conference / Patent / Research Papers)**

#### Write in different section for Conference Proceedings, Patent and Research Papers

#### **Conference Proceedings**

- 1. Mukherjee, M., & Baksi, S. (2024). Silver nanoparticles in biomedical contexts: Current insights and future directions. International Journal of Pharmacology and Pharmaceutical Research, 6(1, Part A), 10–12.
- 2. Pal, P., & Mukhopadhyay, P. K. (2024, December). Ascorbic acid and α-tocopherol can take care fluoride induced testicular apoptosis and inflammation in adult Wistar rats. Paper presented at the 47th All India Cell Biology Conference & International Symposium On 'Cell in Action'.

- 3. Pal, P. (2024, April). Supplementation with vitamin C and E can mitigate NaF-mediated testicular and spermatozoal anomalies in adult Wistar rats. Paper presented at the National Conference on Zoology for Ecosystem and Human Health.
- 4. Nandy, A., Pal, P. K., Roy, P., Saha, N. C., & Banerjee, P. (2024). Insecticides and their toxicological impact: A comprehensive overview. In The living laboratory: Biotechnology and microbial frontiers (pp. 27-49). AkiNik Publications.
- 5. Sarkar, M., Sarkar, S., Pal, P. K., & Banerjee, P. (2024). Implication of alternative drug sources to combat against fish fungal pathogen Saprolegnia parasitica. In Blueprints of life: Unblocking the power of modern biotechnology (pp. 182-198).

#### **Book Chapters**

- 1. Ghosh, S. (Ed.). (2024). Futuristic trends in chemical material sciences & nano technology (Vol. 3, Book 14). IIP Series. <a href="https://www.iipseries.org/view-pub-book.php?bookid=178&bookname=futuristic-trends-in-chemical-material-sciences-amp-nano-technology-volume-3-book-14">https://www.iipseries.org/view-pub-book.php?bookid=178&bookname=futuristic-trends-in-chemical-material-sciences-amp-nano-technology-volume-3-book-14</a>
- 2. Pal, P., Baksi, S. (2025). Proteomics in Unravelling Secondary Metabolite Synthesis in Plants: Exploring the Microbial Connection. In: Arora, N.K., Pandey, P., Mishra, J. (eds) Environmental Sustainability and Biotechnology: Opportunities and Challenges. Microorganisms for Sustainability, vol 46. Springer, Singapore. https://doi.org/10.1007/978-981-96-9025-1 12
- 3. Baksi, S., Pal, P., Baksi, S. (2025). Green Valorization Protocols for Marine Food Waste: Collagen and Chitin Recovery. In: Sarkar, T. (eds) Food Waste Valorization. Methods and Protocols in Food Science. Humana, New York, NY. <a href="https://doi.org/10.1007/978-1-0716-4646-5">https://doi.org/10.1007/978-1-0716-4646-5</a> 15
- 4. Das, K., Mondal, S., Dhara, S., Das, A., Daizy, & Ghosh, S. (2024). Diagnosis of Alagille syndrome: A genetic disorder. In Interdisciplinary review articles Assisting as a bridge between research & development. AkiNik Publications. https://doi.org/10.22271/ed.book.2879
- 5. Datta, D., & Ghosh, S. (2024). A review on role of long non coding RNA in dengue fever. In Microbes and biotechnology: Real-world applications. Integrated Publications. https://doi.org/10.62778/int.book.451
- 6. Kanthal, J., & Ghosh, S. (2024). Nanotechnology-based immunotherapeutic medication for cancer diagnosis and treatment. In Microbes and biotechnology: Real-world applications. Integrated Publications. https://doi.org/10.62778/int.book.451
- 7. Gosai, R., & Ghosh, S. (2024). Medicinal review of Costus igneus: The insulin plant. In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 8. Samanta, R., & Ghosh, S. (2024). Functional effect of yogurt in human health. In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479

- 9. Roy, R., Ghosh, R., Dasgupta, T., Karmakar, S., & Ghosh, S. (2024). Role of Helicobacter pylori in gastric carcinogenesis. In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 10. Karmakar, S., Roy, S., Ghosh, R., Roy, R., & Ghosh, S. (2024). Phage therapy: A promising paradigm shift in antibiotic resistance. In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 11. Paul, M., & Ghosh, S. (2024). Functional effect regarding specialised metabolites constructed over endophytic fungi. In Microbial biotechnology in industry and medicine. Bright Sky Publications. https://doi.org/10.62906/bs.book.213
- 12. Sarker, M., Pan, I., Ghosh, S., Tikadar, T., Das, S., Patra, P., & Ghosh, S. (2024). Cystic fibrosis: An inherited life threatened genetic disorder. In Microbial biotechnology in industry and medicine. Bright Sky Publications. https://doi.org/10.62906/bs.book.213
- 13. Kumari, P., & Ghosh, S. (2024). Anticancer peptides: Synthesis methods, modes of action, and future potential therapeutic uses for cancer treatment. In Articles from different disciplines that serve as a link between research and development. AkiNik Publications. https://doi.org/10.22271/ed.book.2993
- 14. Saha, D., Nath, P., & Ghosh, S. (2024). Gene enrichment, network mapping, and identification of potential core genes associated with Parkinson's disease. In Articles from different disciplines that serve as a link between research and development. AkiNik Publications. https://doi.org/10.22271/ed.book.2993
- 15. Sutradhar, B. D., Ghosh, S., & De, D. (2024). GBA gene expression study of Parkinson disease. In Research renaissance: Integration of interdisciplinary terrains. Notion Press.
- 16. Ghosh, B., Sarkar, S., & Ghosh, S. (2024). Advancing sustainable wastewater treatment: Unleashing the potential of nano-sponges for effective remediation. In Innovative and hybrid technologies for wastewater treatment and recycling. CRC Press/Taylor & Francis Group. https://doi.org/10.1201/9781003454199
- 17. Perween, M., Sarkar, S., Sarkar, S., & Ghosh, B. (2024). The utility of biologically competent polymers and tuning natural bioactive compounds in modern dermatological formulations: A concise review. In The living world: Fundamentals of life sciences. AkiNik Publications. https://doi.org/10.22271/ed.book.3190
- 18. Mitra, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Nanoparticle and antibiotic: Combinatorial therapy for biofilm prevention. In The living world: Fundamentals of life sciences. AkiNik Publications. https://doi.org/10.22271/ed.book.3190
- 19. Singh, A., Perween, M., Bhardwaj, P., Mandal, P., Lama, R., Ghosh, S., Sarkar, S., & Ghosh, B. (2024). The utility of biologically competent polymers and tuning natural bioactive compounds in modern dermatological formulations: A concise review. In Interdisciplinary review articles Assisting as a bridge between research & development. AkiNik Publications. https://doi.org/10.22271/ed.book.2879
- 20. Singh, P., Das, A., Saha, T., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Pioneering the next frontier: Innovative approaches to tackle antibiotic resistance. In The living world: Fundamentals of life sciences. AkiNik Publications. https://doi.org/10.22271/ed.book.3190

- 21. Bhunia, R., Manna, R., Sarkar, S., Sarkar, S., & Ghosh, B. (2024). In Life at the molecular level an understanding of biology. Bright Sky Publications. https://doi.org/10.22271/ed.book.3190
- 22. Mandal, P., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). In Life at the molecular level an understanding of biology. Bright Sky Publications. https://doi.org/10.22271/ed.book.3190
- 23. Mishra, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). In Life at the molecular level an understanding of biology. Bright Sky Publications. https://doi.org/10.22271/ed.book.3190
- 24. Das, D., Bhowmick, T., Saha, T., Banerjee, P., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). In Life at the molecular level an understanding of biology. Bright Sky Publications. https://doi.org/10.22271/ed.book.3190
- 25. Jishan, A., Sarkar, S., Sarkar, S., & Ghosh, B. (2024). Delving into the importance of bioactive peptide from marine algae & their potential health impacts. In The living laboratory: Biotechnology & microbial frontiers. AkiNik Publications. https://doi.org/10.22271/ed.book.3211
- 26. Chatterjee, A., Mal, S., Banerjee, P., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). In The living laboratory: Biotechnology & microbial frontiers. AkiNik Publications. https://doi.org/10.22271/ed.book.3211
- 27. Adhikari, D., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Decoding food spoilage: Microbial culprits and mechanisms. In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 28. Das, J., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Exploring the role of melatonin in disease prevention and anti-aging. In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 29. Das, D., Bhowmick, T., Dutta, S., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 30. Das, A., Singh, P., Saha, T., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 31. Dey, S., Ghosh, B., Sarkar, S., Ghosh, S., & Sarkar, S. (2024). In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
- 32. Jishan, A., Ghosh, S., Sarkar, S., Sarkar, S., & Ghosh, B. (2024). Delving into the importance of bioactive peptide from marine algae & their potential health impacts. In Microbes and biotechnology: Real-world applications. Integrated Publications. https://doi.org/10.62778/int.book.451
- 33. Mishra, S., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Aloe vera: An in-depth exploration of its therapeutic and medicinal uses. In Microbes and biotechnology: Real-world applications. Integrated Publications. https://doi.org/10.62778/int.book.451
- 34. Pattyanayak, A., Ghosh, B., Ghosh, S., Sarkar, S., & Sarkar, S. (2024). Antimicrobial activity of medicinal plants. In Microbes and biotechnology: Real-world applications. Integrated Publications. https://doi.org/10.62778/int.book.451

- 35. Paul, S., De, D., Pal, P., & Ghosh, B. (2023). In Frontiers in biotechnology: Emerging and strategies.
- 36. Ghosh, S., Sarkar, S., Ghosh, B., & Sarkar, S. (2023). Recent advancements on computational enzyme designing: Rational to de-novo. In Frontiers in biotechnology: Emerging and strategies.
- 37. Ghosh, B., Sarkar, S., Sarkar, S., & Ghosh, S. (2023). Recent advances in the sensing of pesticides and antibiotics in water through fluorescent quantum dots. In Frontiers in biotechnology: Emerging and strategies.
- 38. Sarkar, S., Ghosh, S., Ghosh, B., & Sarkar, S. (2023). In Microbiome: Principles and exploration.
- 39. Sarkar, S., Ghosh, S., Ghosh, B., & Sarkar, S. (2023). In Microbiome: Principles and exploration.
- 40. Mondal, S., Maity, A., Sarkar, S., Sarkar, S., & Ghosh, B. (2025). In BIOBRIDGES: Connecting technology with the future of life. Integrated Publications. https://doi.org/10.62778/int.book.535
- 41. Bakshi, S., Sarkar, S., Sarkar, S., & Ghosh, B. (2025). In BIOBRIDGES: Connecting technology with the future of life. Integrated Publications. https://doi.org/10.62778/int.book.535
- 42. Dey, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2025). In BIOBRIDGES: Connecting technology with the future of life. Integrated Publications. <a href="https://doi.org/10.62778/int.book.535">https://doi.org/10.62778/int.book.535</a>
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- 47. Shaw, R., Sarkar, S., & Ghosh, B. (2025). In Blueprints of life: Unlocking the power of modern biotechnology. Penprints.
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- 49. Thakur, S., Sarkar, S., Pal, P., & Ghosh, B. (2025). In Blueprints of life: Unlocking the power of modern biotechnology. Penprints.
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- 51. Das, P., Ghosh, B., & Sarkar, S. (2025). In Microbial menace and miracle: The double-edged sword of infection and immunity. Penprints. (In press)
- 52. Nandy, A., Pal, P. K., Roy, P., Saha, N. C., & Banerjee, P. (2025). In The living laboratory. AkiNik Publications. https://doi.org/10.22271/ed.book.3211

- 53. Das, D., Bhowmick, T., Saha, T., Banerjee, P., Ghosh, B., Sarkar, S., & Sarkar, S. (2025). In Life at the molecular level: An understanding of biology. Bright Sky Publications. https://doi.org/10.62906/bs.book.332
- 54. Chatterjee, A., Mal, S., Banerjee, P., Ghosh, B., Sarkar, S., & Sarkar, S. (2025). In The living laboratory. AkiNik Publications. <a href="https://doi.org/10.22271/ed.book.3211">https://doi.org/10.22271/ed.book.3211</a>
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- 56. Garai, S., & De, D. (2024). In Microbes and biotechnology: Real-world applications. Integrated Publications. https://doi.org/10.62778/int.book.451
- 57. Bera, K., Ghosh, S., & De, D. (2024). In Microbial biotechnology in industry and medicine. Bright Sky Publications. https://doi.org/10.62906/bs.book.213
- 58. Kanjilal, S., & De, D. (2024). In Biotech miracles: Harnessing the power of microbes. Integrated Publications. https://doi.org/10.62778/int.book.479
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- 69. Patra, P., Roy, D., & De, D. (2025). In Blueprints of life: Unlocking the power of modern biotechnology. Penprints.
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- 74. Mandal, K., Das, D., Bose, S. K., Ghosh, S., & De, D. (2025). In Blueprints of life: Unlocking the power of modern biotechnology. Penprints.
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- 78. Mukherjee, S., & Pal, P. (2024). Biotech miracles: Harnessing the power of microbes. Integrated Publications. ISBN: 978-93-5834-436-3. https://doi.org/10.62778/int.book.479
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- 81. Goswami, P., & Pal, P. (2024). Interdisciplinary review articles assisting as a bridge between research & development. AkiNik Publications. ISBN: 978-93-6135-236-2. https://doi.org/10.22271/ed.book.2879
- 82. Das, T., Patra, S., Sultana, M., Mukherjee, T., Banerjee, S., & Pal, P. (2025). The living laboratory biotechnology & microbial frontiers. AkiNik Publications. ISBN: 978-93-6135-365-9. https://doi.org/10.22271/ed.book.3211
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- 86. Das, S., Saha, T., Bhowmick, T., Mazumdar, A., Ghosh, A., Banik, R. D., De, D., & Pal, P. (2025). Biobridges: Connecting technology with the future of life. Integrated Publications. ISBN: 978-93-5834-179-9. https://doi.org/10.62778/int.book.535
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#### **Journal Publications**

- 1. Jafarzadeh, S., Nooshkam, M., Zargar, M., Garavand, F., Ghosh, S., Hadidi, M., & Forough, M. (2024). Green synthesis of nanomaterials for smart biopolymer packaging: Challenges and outlooks. Journal of Nanostructure in Chemistry, 113-136. <a href="https://doi.org/10.1007/s40097-023-00527-3">https://doi.org/10.1007/s40097-023-00527-3</a>
- 2. Datta, D., & Ghosh, S. (2025). Analyzing the molecular signature genes and pathways of dengue fever, dengue hemorrhagic fever and dengue shock syndrome caused by dengue virus in India. Molecular Biotechnology. https://doi.org/10.1007/s12033-025-01407-7
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- 4. Samanta, A., & Ghosh, S. (2024). Molecular insight of Q126P PINK1 mutation Parkinson's disease. Journal of Advanced Zoology, 45(1), 499-503. https://doi.org/10.53555/jaz.v45i1.4564
- 5. Nahar, M., & Ghosh, S. (2024). Comprehensive in-silico study of PLAT domain containing protein 1 upregulated from salinity stress in Oryza sativa. Journal of Advanced Zoology, 45(1), 529-534. https://doi.org/10.53555/jaz.v45i1.4570
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- 7. Sarker, M., & Ghosh, S. (2024). Recent advancement of algal biofuel production and its potential uses. Journal of Advanced Zoology, 45(1), 508-510. https://doi.org/10.53555/jaz.v45i1.4566
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- 12. Sinha, A., Sarkar, S., Sarkar, S., Ghosh, S., & Ghosh, B. (2024). Recent insights into antiadhesion inhibition in medical implants to treat bacterial infections through naturally derived compounds. International Journal of Research in Medical Science, 6(1), 21-26. https://doi.org/10.33545/26648733.2024.v6.i1a.53
- 13. Dey, S., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Analysis of pathogenic genes in dengue virus. Zoological and Entomological Letters, 4(1), 67-70. https://doi.org/10.22271/letters.2024.v4.i1a.84

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- 17. Ghosh, S., Spoorthi, B. C., Banerjee, P., Saha, I., Dua, T. K., Sahu, R., & Maiti, A. K. (2024). 10-(6-Plastoquinonyl)decyltriphenylphosphonium imparts anti-colitogenic protection through recovery of mitochondrial dysfunction in ulcerated murine colon: Implications in ulcerative colitis. Life Sciences, 348, 122700. https://doi.org/10.1016/j.lfs.2024.122700
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- 19. Choudhury, S., Saha, I., Bandyopadhyay, B., & Banerjee, P. (2025). Probiotic and synbiotic isolates from whey water and fermented rice water exert compelling wound-healing efficacy in a diabetic mouse model. Biotechnology and Applied Biochemistry. <a href="https://doi.org/10.1002/bab.70013">https://doi.org/10.1002/bab.70013</a>
- 20. Kunda, P., Mondal, S., De, D., Dhal, P. K., & Mukherjee, A. (2024). Alteration of rice root endophytic bacterial community composition by Meloidogyne graminicola and identification of potential biocontrol agent. Annals of Microbiology, 42, 1-18. https://doi.org/10.1186/s13213-024-01789-0
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- 27. Dutta, S., Paladhi, P., Pal, S., Srimani, S., Bose, G., Ghosh, P., Chattopadhyay, R., & Ghosh, S. (2024). Screening of the combined risk of genetics and epidemiology on infertility among Indian men: Synergistic effect of AZFc partial deletions and habits of smokeless chewing tobacco. American Journal of Men's Health, 8(5). https://doi.org/10.1177/15579883241279195
- 28. Pal, S., Paladhi, P., Dutta, S., Chattopadhyay, R., & Ghosh, S. (2025). Novel genetic variants of CDC25A significantly increase risk of spermatogenesis arrest in men from Bengali population, India: A cross-sectional study. Journal of Human Reproductive Sciences, 18(1), 32–37. https://doi.org/10.4103/jhrs.jhrs 26 25
- 29. Das, A., Mitra, A., Ghosh, S., Sarkar, S., Pal, P. K., Bandyopadhyay, D., & Chattopadhyay, S. (2025). Arsenic-induced transition of thymic inflammation-to-fibrosis involves Stat3-Twist1 interaction: Melatonin to the rescue. BioFactors, 51(1), e2110. https://doi.org/10.1002/biof.2110

#### **Patent Publication**

- 1. Roy, B., Vinitha, S., Dutta, P., & Ghosh, S. (2025). Natural anti-inflammatory powder formulation [Patent application]. Indian Patent Office. Application No. 202531022079 A. Filed March 12, 2025. Published March 28, 2025.
- 2. Dewan, B., Mondal, S., Bakshi, S., Nadim, K., & Ghosh, B. (2025). Organic hair mask formulation [Patent application]. Indian Patent Office. Application No. 202531022102A. Filed March 12, 2025. Published March 28, 2025.
- 3. Banerjee, P., Das, A., Mazumdar, A., Manna, T., & Adhikari, S. (2025). Moss cage air purification system for air conditioner [Patent application]. Indian Patent Office. Application No. 202531022082A. Filed March 12, 2025. Published March 28, 2025.
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- 5. Swami Vivekananda University. (2025). Anti-diabetic powder composition (Application No. 202531021921A). Inventors: Sengupta, T., Ghosh, A., Mondal, M., Das, S., Laha, A., Pal, P., & Adhikari, S. Application filed March 11, 2025; published March 28, 2025.

#### Conferences, Workshops, Seminars Organized

- One-Day Hands-On Training Workshop on Forensic Analysis of Body Fluids -DECEMBER- 2024
- 2. The 10-day journey of knowledge, innovation, and inspiration concluded on a high note with an amazing group of students from Swami Vivekananda University DECEMBER- 2024
- 3. Industry-Academia Meet, 2025 JANUARY- 2025
- 4. The International Conference on Science and Technological Innovations in Agriculture Life Sciences and Food & Nutrition, 2025 February- 2025
- 5. Nirman Mela Start-up Fair February- 2025
- 6. Celebration Of World Health Day, Guest Speaker Dr. Srirupa Pal, Firector & Founder, IMROINDIA April- 2025
- 7. One day Seminar on Infectious Diseases
- 8. Guest Speaker: Dr. Sayantan Banerjee, Associate Professor, In-charge of Infectious Diseases Division, AIIMS Kalyani April- 2025
- 9. Two-weeks Hands-on Faculty Development Program on "Innovations in Indian Higher Education: Promoting Holistic Multidisciplinary & Inclusive Teaching Learning & Governance" organized by School of Life Sciences from 7th to 19th July, 2025
- 10. 6-day Hands-on Training Workshop on "Advanced Biological Instruments: Enhancing Research & Practical Skills" from 21st to 26th July, 2025
- 11. 4-days Hands-on Training Workshop on "Next Gen Bioresearch: Tools and Techniques in Research Methodology & Computational Biology" from 19th to 22nd August, 2025

## **Department of Microbiology**

#### **Brief Details About The Department**

Microbiology plays a central role in understanding the microbial world and its applications in health, agriculture, environment, and industry. From the discovery of antibiotics to the development of modern biotechnology, microbiology has been a cornerstone of scientific progress. With advancements in genomics, molecular biology, and industrial fermentation, microbiology now contributes significantly to healthcare, pharmaceuticals, food security, waste management, and sustainable development. Swami Vivekananda University offers programs in Microbiology with the aim to produce graduates and researchers who are skilled in microbial research, disease diagnostics, industrial applications, and environmental biotechnology. The academic curriculum integrates fundamental sciences with practical applications, focusing on microbial physiology, immunology, molecular biology, environmental microbiology, and industrial microbiology. Our faculty members ensure that students are trained to meet global scientific standards and gain exposure to both theoretical and practical aspects of microbiology, preparing them for research, academia, healthcare, and biotechnology industries.

#### **Courses Offered:**

1. B.Sc. In Microbiology

2. M.Sc. In Microbiology

3. Ph.D. In Microbiology

#### **Faculty Details**

Name of the Teacher	Specialization
Dr Subhasis Sarkar	The Industrially important enzymes/ value added product generation from solid waste; Exploration
	of potential microorganism for waste remediation
	Oncology And Medical Biotechnology, Molecular
Dr Pritha Pal	Biology, Medical Microbiology, Toxicology, And
Ms Suranjana Sarkar	Cytology  Drug Discovery and Protein Interaction
Dr. Aritri Laha	Agriculture Microbiology & Biotechnology
Ms. Ankita Das	Medical Microbiology
Mr Rupesh Dutta Banik	Environmental Microbiology
Dr. Goutam Mukherjee	Industrial Microbiology

#### **External Members On The Board Of Studies:**

Sl. No.	Name of the Members	Designation of The Members
1.	DR. SUBHAJIT SAHA	Assistant Professor, Department of Zoology, University of Burdwan
2.	PROF. (DR.) ARIJIT BHATTACHARYA	Professor & Head, Department Of Biological Sciences, Adamas University
3.	PROF. (DR.) KOUSHIK PRAMANICK	Professor & Head, Integrative Biology Research Unit, Department of Life Sciences, Presidency University

#### Publications Details (Conference / Patent / Research Papers/Book Chapters)

# Write in different section for Conference Proceedings, Patent, Book Chapters and Research Papers

#### **Conference Proceedings / Papers**

- 1. Pal, N., Das, P., Dutta, R., Sarkar, S., Mukherjee, S., Devi, P., Mukherjee, M., Dhar, S., Ghosh, S., Sarkar, S., Sarkar, S., & Ghosh, B. (2024). Water reclamation through nanoremediation & bioremediation: A weal against conventional chemical techniques. Journal of Survey in Fishery Sciences, 10(1S), 6297-6305. https://doi.org/10.53555/sfs.v10i1S.2141
- 2. Chakraborty, S., Roy, S., Chatterjee, A., Pal, F., Das, R., Sadhu, P., & Sarkar, S. (2024). Exosomal RNA: Interplay and therapeutic potential. Journal of Advanced Zoology, 44(S6), 2309-2314. https://doi.org/10.53555/jaz.v44iS6.3718
- 3. Pal, A., Pal, S., Manna, S., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Unlocking the potential of phytochemicals in anti-diabetic therapy: Mechanisms, challenges, and future prospects. Journal of Advanced Zoology, 44(S6), 2284-2289. https://doi.org/10.53555/jaz.v44iS6.3713
- 4. Roy, S., Ghosh, S., Karmakar, S., Sarkar, S., Sarkar, S., & Ghosh, B. (2024). Immunity risk associated with cytomegalovirus infection after organ transplantation. Journal of Advanced Zoology, 44(S5), 2451-2456. https://doi.org/10.53555/jaz.v44iS5.3202
- 5. Karmakar, S., Roy, S., Sarkar, S., Ghosh, B., Sarkar, S., & Ghosh, S. (2024). Genetic diagnosis of vexas syndrome: A new rare and deadly autoinflammatory disorder in adults. Journal of Advanced Zoology, 44(S5), 2636-2640. https://doi.org/10.53555/jaz.v44iS5.3302
- 6. Das, A., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Recombinant hormones: Applications and challenges. Journal of Advanced Zoology, 44(S6), 2279-2283. https://doi.org/10.53555/jaz.v44iS6.3712
- 7. Das, D., Chakraborty, S., Mukherjee, M., Garai, S., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Revolutionizing the biological landscape: The power of genome editing. Journal of Advanced Zoology, 44(S5), 2446-2450. https://doi.org/10.53555/jaz.v44iS5.3199
- 8. Dey, S., Ghosh, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2024). Analysis of pathogenic genes in dengue virus. Zoological and Entomological Letters, 4(1), 67-70. <a href="https://doi.org/10.22271/letters.2024.v4.i1a.84">https://doi.org/10.22271/letters.2024.v4.i1a.84</a>

- 9. Basak, T., Pal, P., & Sarkar, S. (2024). Study of correlation of arsenic in fish flesh and occurrence of oral carcinoma in effected areas of West Bengal. Journal of the Marine Biological Association of India. https://doi.org/10.18311/jmmf/2023/36036
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- 63. Dey, S., Ghosh, B., Sarkar, S., & Sarkar, S. (2025). Biobridges: Connecting technology with the future of life. Integrated Publications. ISBN: 978-93-5834-976-4. https://doi.org/10.62778/int.book.535
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#### **Patent Publication**

1. Banik, S., Sarkar, S., Chakraborty, A., Saha, A., Mitra, D., & Sarkar, S. (2025). Probiotic malai formulation. Patent Application No. 202531022101A. Filed: March 2, 2025. Published: March 8, 2025. Swami Vivekananda University.

- 2. Banerjee, S., Patra, P., Ghosh, S., Thakur, S., Sarkar, R., & Pal, P. (2025). Probiotic gummies. Patent Application No. 202531040469A. Filed: April 26, 2025. Published: May 2, 2025.
- 3. Bhowmik, S., Roy, D., Chakraborty, S., & Sarkar, S. (2025). Herbal formulation-based lip balm. Patent Application No. 202531021920A. Filed: March 11, 2025. Published: March 28, 2025.

#### Conferences, Workshops, Seminars Organized

- 1. One-Day Hands-On Training Workshop on Forensic Analysis of Body Fluids DECEMBER- 2024
- 2. The 10-day journey of knowledge, innovation, and inspiration concluded on a high note with an amazing group of students from Swami Vivekananda University DECEMBER- 2024
- 3. Industry-Academia Meet, 2025 JANUARY- 2025
- 4. The International Conference on Science and Technological Innovations in Agriculture Life Sciences and Food & Nutrition, 2025 February- 2025
- 5. Nirman Mela Start-up Fair February- 2025
- 6. Celebration Of World Health Day, 2025 APRIL 2025
- 7. One day Seminar on Infectious Diseases, Guest Speaker: Dr. Sayantan Banerjee, Associate Professor, In-charge of Infectious Diseases Division, AIIMS Kalyani APRIL 2025
- 8. Two-weeks Hands-on Faculty Development Program on "Innovations in Indian Higher Education: Promoting Holistic Multidisciplinary & Inclusive Teaching Learning & Governance" organized by School of Life Sciences from 7th to 19th July, 2025.
- 9. 6-day Hands-on Training Workshop on "Advanced Biological Instruments: Enhancing Research & Practical Skills" from 21st to 26th July, 2025.
- 10. 4-days Hands-on Training Workshop on "Next Gen Bioresearch: Tools and Techniques in Research Methodology & Computational Biology" from 19th to 22nd August, 2025.

## **Department of Computer Science & Engineering**

#### **Brief Details about the Department**

The Department of Computer Science & Engineering of Swami Vivekananda University, Barrackpore, is one of the premier academic units of the institution, established with the vision of imparting quality technical education, nurturing innovation, and fostering research culture in the domain of computer science, information technology, and allied interdisciplinary areas, keeping in view the ideals of Swami Vivekananda who emphasized the synthesis of knowledge, skills, ethics, and service to society; the department offers undergraduate (B.Tech in CSE, AI, Data Science, Cyber Security, and allied streams), postgraduate (M.Tech in CSE and emerging fields), and doctoral (Ph.D.) programs designed with proper guidelines, ensuring that students receive a holistic blend of theoretical foundations and practical exposure; the curriculum covers a broad spectrum of computer science disciplines such as programming languages, algorithms, data structures, operating systems, database management systems, computer networks, software engineering, compiler design, machine learning, artificial intelligence, big data analytics, cloud computing, cybersecurity, Internet of Things (IoT), blockchain, and full-stack development, with continuous revisions to keep pace with global technological advancements and industry requirements; the department is equipped with modern laboratories including Programming Labs, Database Lab, Operating Systems Lab, AI & Machine Learning Lab, IoT & Robotics Lab, Networking & Security Lab, and Research & Innovation Centers, all furnished with the latest hardware and licensed software to provide hands-on training and project-based learning; highly qualified and dedicated faculty members with academic, research, and industry experience guide students not only in academics but also in developing problem-solving skills, innovation mindset, and professional ethics, while also engaging in funded research projects, publications in reputed journals, and collaborations with industry and research organizations; the department maintains strong industry linkages through MoUs, internships, industrial training, workshops, guest lectures, and placement drives, ensuring excellent career opportunities for graduates in reputed multinational companies, IT firms, research labs, and higher studies both in India and abroad; students are encouraged to participate in hackathons, coding competitions, paper presentations, innovation challenges, and entrepreneurship development programs under the guidance of faculty mentors and through platforms like the Institution's Innovation Council (IIC), NSS, and various technical clubs and societies that nurture leadership qualities, teamwork, and social responsibility; the department actively promotes research and development in emerging technologies and has a vision to create a knowledge hub where students, researchers, and faculty converge to contribute towards the growth of digital India, Atmanirbhar Bharat, and the global knowledge economy; apart from academics, emphasis is laid on holistic student development through extracurricular and cocurricular activities including cultural programs, sports, community outreach, seminars, and technical festivals, thereby creating a vibrant campus atmosphere; state-of-the-art infrastructure such as smart classrooms, e-learning resources, library with digital access, Wi-Fi-enabled campus, and computing facilities support the teaching-learning ecosystem; the department follows outcome-based education (OBE) model, ensuring that graduates acquire essential skills, professional ethics, and lifelong learning abilities, making them competent engineers, innovators, entrepreneurs, and responsible citizens; over the years, alumni of the department have excelled in diverse domains ranging from software development, research,

higher education, civil services, and entrepreneurship, contributing significantly at national and international levels and reflecting the department's commitment towards academic excellence and societal development; in addition, the department aligns its academic and research initiatives with the university's mission of value-based education, blending technical proficiency with moral and ethical values inspired by Swami Vivekananda's teachings of self-reliance, discipline, and service to mankind, thereby producing graduates who not only excel in their professional careers but also contribute towards building a just, inclusive, and technologically empowered society; with a future-ready approach, the Department of Computer Science & Engineering at Swami Vivekananda University constantly endeavours to expand its scope by introducing new courses in cutting-edge areas such as artificial intelligence, deep learning, quantum computing, augmented and virtual reality, bioinformatics, and green computing, while strengthening collaborations with industries, research institutions, and international universities to provide global exposure to its students and faculty, making it a vibrant center of excellence for education, research, innovation, and societal contribution in the ever-evolving field of computer science and engineering.

#### **Courses Offered:**

#### **Department of Computer Science & Engineering**

- **❖** Diploma Programs
- Diploma in Computer Science
- **Undergraduate Programs**
- B. Tech in Computer Science & Engineering
- **❖** Postgraduate Programs
- M.Tech in Computer Science & Engineering
- **Doctoral Program (Ph.D.)**
- Ph.D. in Computer Science & Engineering

#### **Faculty Details**

Name of the Teacher	Specialization
MR. SUBHADEEP BHATACHARYYA	AI, ML
MR. ARINDAM DAS	Machine Learning, Natural Language Processing
DR. AMITAVA KAR	Machine Learning
MS. PARAMITA SARKAR	Data science
MS. JAYEETA GHOSH	AI, ML
MS. PRIYANJNA MITRA	Generative AI
MR. PRADIP SAHOO	Machine Learning, AI, Generative AI, Android Development, IOS Development, NLP, Virtual Reality(VR) and Augmented Reality(AR), Blockchain
MR. SUBHODIP MUKHERJEE	Cloud Computing
DR. RANJAN KUMAR MONDAL	Cloud Computing, Internet of Things
MR. MIMO PATRA	Cloud Computing

MR. ANIKET DEY  Machine Learning, AI, Generative AI, Android Development, IOS Development, NLP, Virtual Reality(VR) and Augmented Reality(AR), Blockchain  MS. SUMANA CHAKRABORTY  MR. APURBA SAHA  MR. SOURAV SAHA  MR. SOURAV SAHA  MR. MUSTAQ AHAMED BULBUL  MR. SAYKAT BHUNIYA  MR. SAYKAT BHUNIYA  MR. SOURAV MALAKAR  MR. SAMIK BASU  MR. SAMIK BASU  MR. SAMIK BASU  MR. SUBRATA NANDI  MR. SUBRATA NANDI  MR. SUBRATA NANDI  MR. SUBRATA NANDI  MR. SOHAM MUKHERJEE  MS. SHARDHA  ROYCHOWDHURY  Dr. Subir Gupta  MR. DEBAYAN BHATTACHARYYA  MR. BIPRADAS PANDIT  MR. KASHINATH DUTTA  MAChine Learning, Deep Learning, Multimodal Large Language Models  Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning  Medical Image Analysis, Digital Pathology, Health Informatics, Computer Vision & Image Processing  Machine Learning, Deep Learning, Multimodal Large Language Models  AI, ML  MR. DEBAYAN BHATTACHARYYA  MR. BIPRADAS PANDIT  Machine Learning, Deep Learning, Multimodal Large Language Models  MR. KASHINATH DUTTA  Machine Learning, Deep Learning, Multimodal Large Language Models  AI, ML  Machine Learning, Deep Learning, Multimodal Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models  AI, ML  Machine Learning, Deep Learning, Multimodal Large Language Models  AI and Machine Learning		,
CHAKRABORTY MR. APURBA SAHA Cloud Computing Machine Learning, Image Processing, Artificial Intelligence Machine Learning, Deep Learning, Multimodal Large Language Models  MR. MUSTAQ AHAMED BULBUL  MR. SUBHADIP DAS Machine Learning, Deep Learning, Multimodal Large Language Models  MR. SATYAJIT MAITI MR. SAYKAT BHUNIYA MR. SITI KANTHA CHATTOPADHYAY  MR. SOURAV MALAKAR  MR. SAMIK BASU  MR. SAMIK BASU  Dr. SANJAY NAG  MR. SUBRATA NANDI MR. SUBRATA NANDI MR. SOHAM MUKHERJEE MS. SHARDHA ROYCHOWDHURY Dr. Subir Gupta MR. DEBAYAN BHATTACHARYYA MR. BIPRADAS PANDIT MR. KASHINATH DUTTA  Machine Learning, Image Processing, Multimodal Large Language Models  Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning Medical Image Analysis, Digital Pathology, Health Informatics, Computer Vision & Image Processing  Machine Learning, Deep Learning, Multimodal Large Language Models  MR. DEBAYAN DAS MR. BIPRADAS PANDIT  Machine Learning, Deep Learning, Multimodal Large Language Models	MR. ANIKET DEY	Android Development, IOS Development, NLP, Virtual Reality(VR) and
MR. SOURAV SAHA  Machine Learning, Image Processing, Artificial Intelligence  MR. AYAN DAS  Machine Learning, Deep Learning, Multimodal Large Language Models  MR. MUSTAQ AHAMED BULBUL  MR. SUBHADIP DAS  Machine Learning, Deep Learning, Multimodal Large Language Models  MR. SATYAJIT MAITI  MR. SAYKAT BHUNIYA  MR. SITI KANTHA CHATTOPADHYAY  MR. SOURAV MALAKAR  Machine Learning, Deep Learning, Multimodal Large Language Models  Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning  Medical Image Analysis, Digital Pathology, Health Informatics, Computer Vision & Image Processing  MR. SUBRATA NANDI MR. SOHAM MUKHERJEE  MS. SHARDHA ROYCHOWDHURY Dr. Subir Gupta  MR. DEBAYAN BHATTACHARYYA  MR. DEBAYAN DAS MR. BIPRADAS PANDIT  MR. KASHINATH DUTTA  Machine Learning, Image Processing, Artificial Intelligence  Machine Learning, Deep Learning, Multimodal Large Language Models  Machine Learning, Image Processing, Artificial Intelligence  Machine Learning, Deep Learning, Multimodal Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models		IMAGE PROCESSING, AI, ML
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MR. SITI KANTHA CHATTOPADHYAY  MR. SOURAV MALAKAR  Machine Learning, Deep Learning, Multimodal Large Language Models  Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning  Medical Image Analysis, Digital Pathology, Health Informatics, Computer Vision & Image Processing  MR. SUBRATA NANDI  MR. SOHAM MUKHERJEE  MS. SHARDHA ROYCHOWDHURY  Dr. Subir Gupta  MR. DEBAYAN BHATTACHARYYA  MR. DEBAYAN DAS MR. DEBAYAN DAS MR. BIPRADAS PANDIT  MR. KASHINATH DUTTA  Machine Learning, Deep Learning, Multimodal Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models	MR. SATYAJIT MAITI	Generative AI
CHATTOPADHYAY  MR. SOURAV MALAKAR  Machine Learning, Deep Learning, Multimodal Large Language Models  Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning  Medical Image Analysis, Digital Pathology, Health Informatics, Computer Vision & Image Processing  MR. SUBRATA NANDI  MR. SOHAM MUKHERJEE  MS. SHARDHA ROYCHOWDHURY  Dr. Subir Gupta  MR. DEBAYAN BHATTACHARYYA  MR. DEBAYAN DAS MR. DEBAYAN DAS MR. BIPRADAS PANDIT  MR. KASHINATH DUTTA  Computer Vision & Image Processing, Multimodal Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models	MR. SAYKAT BHUNIYA	IMAGE PROCESSING, AI, ML
MR. SOURAV MALAKAR  Large Language Models  Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning  Medical Image Analysis, Digital Pathology, Health Informatics, Computer Vision & Image Processing  MR. SUBRATA NANDI  Cypher Text Encryption  MR. SOHAM MUKHERJEE  Generative AI  MS. SHARDHA ROYCHOWDHURY  Dr. Subir Gupta  MR. DEBAYAN BHATTACHARYYA  MR. DEBAYAN DAS  MR. DEBAYAN DAS  MR. BIPRADAS PANDIT  MR. KASHINATH DUTTA  Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models  Machine Learning, Deep Learning, Multimodal Large Language Models		Computer Vision & Image Processing
MR. SAMIK BASU  Visualization, High-Performance Data Processing, Scalable Machine Learning  Medical Image Analysis, Digital Pathology, Health Informatics, Computer Vision & Image Processing  MR. SUBRATA NANDI  MR. SOHAM MUKHERJEE  Generative AI  MS. SHARDHA ROYCHOWDHURY  Dr. Subir Gupta  MR. DEBAYAN BHATTACHARYYA  MR. DEBAYAN DAS  MR. DEBAYAN DAS  MR. DEBAYAN DAS  MR. BIPRADAS PANDIT  MR. KASHINATH DUTTA  Visualization, High-Performance Data Processing, Scalable Machine Learning  Medical Image Analysis, Digital  Pathology, Health Informatics, Computer Vision & Image Processing  Machine Learning, Deep Learning, Multimodal Large Language Models	MR. SOURAV MALAKAR	1
Dr. SANJAY NAG Pathology, Health Informatics, Computer Vision & Image Processing  MR. SUBRATA NANDI Cypher Text Encryption  MR. SOHAM MUKHERJEE Generative AI  MS. SHARDHA ROYCHOWDHURY Machine Learning, Deep Learning, Multimodal Large Language Models  Dr. Subir Gupta Generative AI  MR. DEBAYAN BHATTACHARYYA AI, ML  MR. DEBAYAN DAS MR. DEBAYAN DAS MR. BIPRADAS PANDIT Cloud Computing  MR. KASHINATH DUTTA Machine Learning, Deep Learning, Multimodal Large Language Models	MR. SAMIK BASU	Visualization, High-Performance Data
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ROYCHOWDHURY  Dr. Subir Gupta  MR. DEBAYAN BHATTACHARYYA  MR. DEBAYAN DAS  MR. DEBAYAN DAS  MR. BIPRADAS PANDIT  MR. KASHINATH DUTTA  Large Language Models  Generative AI  AI, ML  Network Technology  Cloud Computing  Machine Learning, Deep Learning, Multimodal Large Language Models	MR. SOHAM MUKHERJEE	Generative AI
MR. DEBAYAN BHATTACHARYYA  MR. DEBAYAN DAS MR. BIPRADAS PANDIT MR. KASHINATH DUTTA  MR. KASHINATH DUTTA  MR. MI, ML  Network Technology Cloud Computing Machine Learning, Deep Learning, Multimodal Large Language Models		
BHATTACHARYYA  MR. DEBAYAN DAS  Network Technology  MR. BIPRADAS PANDIT  Cloud Computing  MR. KASHINATH DUTTA  Machine Learning, Deep Learning, Multimodal Large Language Models	Dr. Subir Gupta	Generative AI
MR. BIPRADAS PANDIT  Cloud Computing  MR. KASHINATH DUTTA  Machine Learning, Deep Learning, Multimodal Large Language Models		AI, ML
MR. BIPRADAS PANDIT  Cloud Computing  MR. KASHINATH DUTTA  Machine Learning, Deep Learning, Multimodal Large Language Models	MR. DEBAYAN DAS	Network Technology
MR. KASHINATH DUTTA  Large Language Models		
MR. SAYAN CHAKRABORTY AI and Machine Learning	MR. KASHINATH DUTTA	
	MR. SAYAN CHAKRABORTY	AI and Machine Learning

#### **External Members on the Board of Studies:**

Prof. (Dr.) Amlan Chakrabarti	Head IT & Tech. Innovation Cell, Dept. of Higher Education, Govt. of West Bengal, Professor and Director, A.K. Choudhury School of IT, University of Calcutta
Prof. Jyostna Kumar Mandal	Professor, Department of Computer Science and Engineering (erstwhile Director, IQAC, University of Kalyani
Dr. Soumya Sen	Assistant Professor (Stage-III) A.K. Choudhury School of IT University of Calcutta

# Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers Journal Publications

- A. Banerjee Majumder, S. Gupta, D. Singh, S. Majumder. "An Ensemble Model for Predicting Cardiovascular Disease utilizing Nature Inspired Optimization."
  - Baghdad Science Journal, ISSN 2411-7986, 2024. https://doi.org/10.21123/bsj.2024.9973 (Scopus, ESCI)
- Banerjee Majumder, S. Gupta, D. Singh, S. Majumder. "Intelligent Healthcare for Cardiac Patients utilizing Neural Networks, K-Means Clustering, and Ad Hoc Routing." Science Engineering and Health Studies, Vol. 18, 2405007, pp. 1-12, 2024. https://doi.org/10.69598/sehs.18.24050007 (Scopus)
- 3. Thakur, S.K. Gupta, S. Gupta. "Heart Disease Prediction using Machine Learning and Multi-Agent Systems." *Indian Journal of Natural Sciences*, Vol. 15, Issue 84, pp. 75972–75980, 2024. (Web of Science)
- 4. Roy, S. Gupta, P. Das, R.K. Mondal. "NOODLE: An Innovative, Affordable Virtual Learning Device for Inclusive Education."
  - Educational Administration: Theory and Practice, Vol. 30, No. 1, pp. 4664-4674, Jan 2024.
  - https://doi.org/10.53555/kuey.v30i1.8149 (Scopus)
- 5. Datta, S. Gupta, S. Som. "Ubiquitous Hand-Held Device's SIGMA LFSR Driven Security Model." Educational Administration: Theory and Practice, Vol. 30, No. 1, pp. 4488-4492, Jan 2024
  - https://doi.org/10.53555/kuey.v30i1.7969 (Scopus)

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### **Book Chapters (National and Institutional Publishers)**

- 1. A. Datta, S. Gupta, S. Som. "Exploring USB Security of Hand-Held Devices." (ISBN 978-93-6135-962-0) DOI: 10.22271/ed.book.2972.
- 2. S. Dutta Ghoshal, S. Saha, S. Mukherjee, S. Gupta. "Geo-Locational Data Analysis using Machine Learning."
- 3. S. Biswas, A. Banerjee, S. Gupta. "Heart Disease Prediction from Symptom Analysis Using Machine Learning."
- 4. R. Maity, S. Gupta. "Anti-Fraud System for Online Card Transaction using Machine Learning and Data Science."
- 5. P. Pradhan, S. Gupta. "Prediction of Vehicular Accidents Using Machine Learning."
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### **Conference paper published (Book)**

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Books (Published)

- 1. A. Datta, S. Gupta, S. Som. "Exploring USB Security of Hand-Held Devices." (ISBN 978-93-6135-962-0) DOI: 10.22271/ed.book.2972.
- **2.** S. Dutta Ghoshal, S. Saha, S. Mukherjee, S. Gupta. "Geo-Locational Data Analysis using Machine Learning."
- **3.** S. Biswas, A. Banerjee, S. Gupta. "Heart Disease Prediction from Symptom Analysis Using Machine Learning."
- **4.** R. Maity, S. Gupta. "Anti-Fraud System for Online Card Transaction using Machine Learning and Data Science."
- 5. P. Pradhan, S. Gupta. "Prediction of Vehicular Accidents Using Machine Learning."
- **6.** A. Datta, S. Gupta, S. Som. "USB Security of Hand-Held Devices." (All published 7 Oct 2024; ISBN 978-93-6135-962-0; DOI: 10.22271/ed.book.2972)
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### **Patents**

- 1. Music Therapy Device for Deaf and Dumb Appl. No. 202331085483 A 19 Jan 2024.
- 2. Robotic Vehicle using ATMEGA328 Microcontroller, Ultrasonic Sensor and Bluetooth Appl. No. 202431006559 A 9 Feb 2024.
- 3. Hybrid Compiler Appl. No. 202431039789 A 19 Jul 2024.
- 4. ROBAL: A Robotic Vehicle with Auto Balancing Appl. No. 202431040106 A 9 Aug 2024.

- 5. Smell Sensing and Actuation using Embedded Device over the Network Appl. No. 202431040109 A 9 Aug 2024.
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- 24. Saha, S., Bhattacharyya, D., Karmakar, S., Ahmad, M. A., Raza, M., Bhandari, N. K., Nahar, S., Bose, S., & Chowdhury, J. (2024, December 5). *Plant disease detection application*. Application No. 202431096218 A. Swami Vivekananda University.
- 25. Santra, S., Kumar, T., Bishoi, B., Saha, S., Bose, S., & Chowdhury, J. (2024, December 5). *Plant leaf disease detection using deep learning*. Application No. 202431095911 A. Swami Vivekananda University.
- 26. Chowdhury, J., Gupta, S., Sarkar, A., Mondal, G., Das, A., Saha, S., & Bose, S. (2024, November 30). Motion Maze Where gesture leads to gaming adventures. Swami Vivekananda University. Application No. 202431094152 A. Filed 30 November 2024; Published 6 December 2024.
- 27. Chowdhury, J., Sarkar, A., Ash, D., Sen, S., Saha, R., Mitra, S., Patra, T., Saha, S., & Bose, S. (2024, December 3). Virtual trial room. Swami Vivekananda University. Application No. 202431095278 A. Filed 3 December 2024; Published 13 December 2024.

### Conferences, Workshops, Seminars organized

- 1. International Conference on Engineering Design and Computing (ICEDC-2025) 3rd edition, held on 4-6 February 2025.
- 2. International Conference on International Conference on Integrative Science and Engineering, held on 20.06.2024 21.06.2024.
- 3. Workshop titled "Introduction to Artificial Intelligence for Cyber Cell Applications" was held in collaboration with Barrackpore police Commissionerate on May 8, 2025

### **Department of Mechanical Engineering**

### **Brief Details about the Department**

The department of Mechanical Engineering, Swami Vivekananda University offers state of the art education, well equipped classroom, high end laboratories and cutting-edge research facilities for the students to create, enable, apply and spread knowledge in the advanced field of Mechanical Engineering. In addition to curriculum courses, the department contributes to value added courses, guest lecture by industry experts, industrial visits and various add on activities for the students to make them future ready technocrats of academia & industry. We are committed to work in emerging areas and to develop sustainable technologies & innovations pertaining to mechanical engineering and its allied sectors.

### **Courses Offered:**

Diploma in Mechanical Engineering

B-Tech in Mechanical Engineering

M-Tech in Mechanical Engineering (With specialization in Manufacturing Technology)

Ph.D.in Mechanical Engineering

### **Faculty Details**

Name of the Teacher	Specialization
Dr. Bikash Panja	Manufacturing, Composites, , Additive Manufacturing Technology
Dr. Ranjan Kumar	Design, Li-ion Batteries, Design Thinking, Aerospace structure, Finite element simulation and analysis, Material cracks, Vibration
Dr. Md Ershad	Thermal Engg., Fluid mechanics
Dr. Samrat Biswas	Aerodynamics, Fluid Mechanics, Turbulence, CFD, Sediment Interactions, Hydro Turbines
Dr. Arnab Das	Manufacturing, Additive Manufacturing Technology
Mr. Soumya Ghosh	Thermal Engg., Fluid mechanics
Mr. Arijit Mukherjee	Wire Arc Additive Manufacturing, Advanced Machining
Mr. Soumak Bose	Surface treatments, Weld cladding, Corrosion Resistance properties
Mr Suman Kumar Ghosh	Manufacturing Technology, Fluid Mechanics, Tribology
Mr Sayan Paul	Thermal Engineering, CFD
Mr. Abhishek Poddar	Material Science and Technology, Advanced Materials and Composites
Mr. Debashis Majumdar	Finite element simulation and analysis, Material cracks, Vibration
Mr. Dharmendu Sanyal	Materials Science & Technology, Advanced material and composites

Mr. Joydip Roy	Production engineering
Mr. Aniket Deb Roy	Mechatronics and Robotics
Mr. Souray Giri	Advanced Machining & Micromachining
Wil. Souldy Gill	processes
Mr. Prodip Kumar Das	Manufacturing
Mr. Sayantan Sinha Biswas	TIG & Laser welding on advanced materials like
Wir. Sayantan Simia Diswas	glass And other joining processes
Mr. Asish Tripathy	Mechatronics and Robotics
Dr. Subham Biswas	Thermal Engg., Fluid mechanics
Dr. Mohammad Zahid	Manufacturing, Additive Manufacturing
DI. Wonammad Zamd	Technology
Mr. Prosenjit singha	CFD, Sediment Interactions, Hydro Turbines
Dr. Kngshuk Mandal	Thermal Engineering, CFD
Mr. Anupam Mallick	Manufacturing, Additive Manufacturing
Ivii. Anupam iviamek	Technology
Mr. Mohammad Shahid Raza	Advanced Machining
Dr. Ravi Nigam	Wire Arc Additive Manufacturing
Dr. Sujit Majumdar	Manufacturing
Dr. Suresh Gain	TIG & Laser welding on advanced materials like
	glass And other joining processes
Mr. Shyandeeep Chatterjee	Additive Manufacturing Technology

### **External Members on the Board of Studies:**

Name of the Expert (s)	Designation and Affiliation
Prof. (Dr.) Achintya Mukhopadhyay	Professor, Department of Mechanical
	Engineering, Jadavpur University, Kolkata,
	India
Dr. Shamim Haidar	Associate Professor & Head, Department of
	Mechanical Engineering, Aliah University,
	Kolkata, India
Mr. Priyabrat Malla	Founder & Director, SNWEL Engineering
	Pvt. Ltd, India

# Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers:

### **List of Journals**

- 1. Basma Souayeha, Suvanjan Bhattacharyyac, **Soumya Ghosh** d, Huda Alfannakha,Mir Waqas Alama, Biswajit Halderd title of the paper Effects of a novel hybrid turbulator tape on the thermohydraulic performance and irreversibility of a solar air heater, "Case Studies in Thermal Engineering" year of publication Feb 2024, SCI&WOS, DOI:10.1016/j.csite.2024.104132 ISSN:2214-157X
- Ranjan Kumar, Saikat Chatterjee, Vinayak Ranjan, and Sanjoy K. Ghoshal, "Simulation Studies on Combined Effect of Variable Geometry, Rotation, and Temperature Gradient on Critical Speed of Gas Turbine Disc", Critical Speed of Aero Gas Turbine Disc, December 2022, SCI, DOI: 10.1108/MMMS-07-2022-0139
- 3. Ranjan Kumar, Md. Ershad, and Priyam Mondal, "Effect of La2O3 on the Physicomechanical Behaviour of Calcium Fluoroaluminosilicate Glass", Emerging Materials Research, 2025, SCI, (Accepted).
- 4. Ranjan Kumar et al., "Parametric Investigation on Laser Beam Welding of Aluminum Alloy 5052-H32 Using Finite Element Analysis", Journal of Molecular and Engineering Materials (ESCI), 2025, DOI: https://doi.org/10.1142/S2251237325500078.
- 5. Soumya Ghosh, Suvanjan Bhattacharyya, Biswajit Halder, Nirmalendu Biswas, and Samrat Biswas, "Exergy and Thermal Performance Analysis of Solar Air Heater with Novel Hybrid Tape Vortex Generators for Rural Applications", Solar Energy, 2025, SCI, (Accepted).
- 6. Arnab Das, Chitransh Singh, Vivek Bajpai, and Madan Lal Chandravanshi, "Feasibility of Cost-Effective Ultra-Precision Diamond Turning Using Ceramic Bearing Spindle", The International Journal of Advanced Manufacturing Technology, 2025, SCI, DOI: 10.1007/s00170-025-15239-x.
- 7. Arnab Das, Ravi Shankar Rai, and Vivek Bajpai, "Surface Topographical Characterization of ZnO Nanostructured CFRP Composite in High-Speed Micro Drilling", Micro Manufacturing, 2025, SCOPUS, DOI: 10.1007/978-981-96-5550-2 15.
- 8. **Ravi Nigam**, Ramnivas Kumar, Sachin Kumar Singh title of the paper Numerical and experimental investigation on crack detection in a beam using maximal over lapping discrete wavelet transform published in "Structural Health Monitoring"-SCI & WOS year of publication 2024, DOI-

- 10.1177/14759217231214939, ISSN:1475-9217
- 9. Chandan K. G., Patil Mallikarjun B., Soumya Ghosh & Suvanjan Bhattacharyya, "Entropy Analysis for Two-Dimensional Double-Diffusive Mixed Convective Flow of a Williamson Nanofluid Through a Porous Medium", Numerical Heat Transfer, Part B: Fundamentals, March 2024, indexed in SCI & WOS, DOI: 10.1080/10407790.2024.2329256.
- 10. Chandan K. G., Patil Mallikarjun B., Soumya Ghosh, and Suvanjan Bhattacharyya, "Entropy Analysis for Two-Dimensional Double-Diffusive Mixed Convective Flow of a Williamson Nanofluid Through a Porous Medium", Numerical Heat Transfer, Part B: Fundamentals, 2025, SCOPUS, DOI: 10.1080/10407790.2024.2329256.
- 11. Subham Biswas, Ranjib Biswas, Manik Chandra Das, Debal Pramanik, Suvanjan Bhattacharyya, and Arunanshu Shekhar Kuar, "Explore AI-Based Performance Evaluation", Infrared Physics & Technology, 2025, SCI, DOI: 10.1016/j.infrared.2025.105856.
- 12. Arnab Das, "Evolution of Minimum Quantity Lubrication (MQL) as an Environmental Alternative: A Review", Journal of Mechanical Engineering Advancements (SVU), 2025, Institutional Publisher,
- 13. Palash Biswas, Thia Paul, and Bikash Panja, "Tribological Behavior of EN8 Steel in Dry Sliding and Lubricating Conditions", Journal of Mechanical Engineering Advancements (SVU), 2025, Institutional Publisher.
- 14. Samrat Biswas, "Evolution of 3D Printing Technologies: Current Trends and Future Prospects", Journal of Mechanical Engineering Advancements (SVU), 2025, Institutional Publisher.

### **List of Books**

- 1. Dr. Ranjan Kumar authored the international title "Mechanical Engineering in Biomedical Application: Bio-3D Printing, Biofluid Mechanics, Implant Design, Biomaterials, Computational Biomechanics, and Tissue Mechanics", published by Wiley in January 2024.
  - **Discipline:** Mechanical Engineering
  - **ISBN:** 978-1394174522
- 2. "Recent Advancements in Computational Intelligence and Design Engineering" published by CRC Press, Taylor & Francis (2025)
  - ISBN: 9781003596745
  - DOI: https://doi.org/10.1201/9781003596745

### **List of Book Chapters**

- 1. Md Ershad, Mechanical Behavior of Bioglass Materials for Bone Implantation, in Mechanical Engineering in Biomedical Applications: Bio3D Printing, Biofluid Mechanics, Implant Design, Biomaterials, Computational Biomechanics, Tissue Mechanics, January 2024.
- 2. Dr. Ranjan Kumar, *Influence of Process Parameters on Mechanical Properties in Weld Cladding*, Taylor & Francis, CRC Press, 2025, ISBN: 9781032980362.
- 3. Dr. Ranjan Kumar, *Solar Energy Utilization in Electric Vehicles: A Process*, Taylor & Francis, CRC Press, 2025, ISBN: 9781032980362.
- 4. Dr. Ranjan Kumar, *Analysis of MRR and Surface Roughness Modeling in Stainless Steel Using Response Surface Methodology*, Taylor & Francis, CRC Press, 2025, ISBN: 9781032980362.
- 5. Dr. Ranjan Kumar, An Ideal Technique for Solving Linear and Nonlinear Goursat

Available

- Problems, Taylor & Francis, CRC Press, 2025, ISBN: 9781032980362.
- 6. Arnab Das, *An Integration of Additive Manufacturing with Industry 4.0: A Review*, Scientific International Publishing House, 2025, ISBN: 978-93-6674-739-2.
- 7. Arnab Das, Green Manufacturing Technologies: Reducing Environmental Impact through Process Innovation, Scientific International Publishing House, 2025, ISBN: 978-93-6674-739-2.
- 8. Arnab Das, Current Trends of Machine Learning in Modern Manufacturing: A Review, Open Books Publisher, 2025, ISBN: 978-81-952903-9-0.
- 9. Arnab Das, Sustainable Marine Energy: Mitigating Environmental Impacts of Ocean Power, Reyansh Global Research Foundation, 2025, ISBN: 978-81-974962-9-5.
- 10. Aniket Deb Roy, Improving Running Posture with the Gait Cycle, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-989217-3-4.
- 11. Aniket Deb Roy, Scavenger Robots for Plastic Waste Reduction, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-989217-3-4.
- 12. Aniket Deb Roy, *The Development and Future of Artificial Hearts*, in *Multidisciplinary Insights in Modern Engineering*, 2025, ISBN: 978-93-6135-956-9.
- 13. Aniket Deb Roy, *Time Management on the Shop Floor by Applying Industrial Automation*, in *Progress in Materials, Manufacturing, and Energy Systems*, 2025, ISBN: 978-81-974427-1-1.
- 14. Soumak Bose, Advancements in Surface Engineering: Techniques, Applications, Challenges, and Future Trends, in Progress in Materials Manufacturing and Energy Systems, 2025, ISBN: 978-81-974427-1-1.
- 15. Soumak Bose, AI and NLP Approaches for Intelligent Transportation Systems: Driving Sustainable Development, in Dynamic Approaches to Multidimensional Challenges, 2025, ISBN: 978-81-981913-8-0.
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- 17. Soumak Bose, The Role of Circular Economy in Promoting Sustainable Engineering Practices, in Innovative Solutions and Sustainable Development: Bridging Technology and Science for a Greener Future, 2025, ISBN: 978-93-6674-739-2.
- 18. Soumak Bose, Advancements and Future Directions of Robotics in Manufacturing: Enhancing Efficiency, Precision and Safety, in Interdisciplinary Research Horizons in Science and Technology, 2025, ISBN: 978-936-1358-333.
- 19. Soumak Bose, Advancements in Composite Materials: Innovations, Applications and Future Perspectives in Mechanical Engineering, in Interdisciplinary Research Horizons in Science and Technology, 2025, ISBN: 978-936-1358-333.
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- *Materials for Sustainable Development*, 2025, ISBN: 978-81-989217-3-4.
- 23. Samrat Biswas, *Production of Biodiesel Using Chicken Waste Fats*, in *Research Methodologies in Engineering and Applied Science*, 2025, ISBN: 978-93-6233-761-0.
- 24. Samrat Biswas, *Modal Analysis of a NACA 0012 Airfoil Wing Using ANSYS Workbench*, in *Research Methodologies in Engineering and Applied Science*, 2025, ISBN: 978-93-6233-761-0.
- 25. Samrat Biswas, Influence of Fiber Orientation on the Vibration Characteristics of Composite Beams with Crack, in Research Methodologies in Engineering and Applied Science, 2025, ISBN: 978-93-6233-761-0.
- 26. Samrat Biswas, Surface Characterization of Fiber Laser Texturing on Hastelloy C-276 at Different Temperatures, in Research Methodologies in Engineering and Applied Science, 2025, ISBN: 978-93-6233-761-0.
- 27. Samrat Biswas, AI and Machine Learning in Computational Fluid Dynamics: Revolutionizing Simulations, in Engineering for Sustainability, Research, Innovation, and Impact, 2025, ISBN: 978-81-974962-9-5.
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- 31. Samrat Biswas, Advancements in Carbon Capture Technologies for Mechanical Engineering, in Interdisciplinary Research Horizons in Science and Technology, 2025, ISBN: 978-93-6135-833-3.
- 32. Samrat Biswas, *Innovative Bleeding-Edge Refrigerants for Sustainable Cooling Solutions*, in *Machine Intelligence and Materials for Sustainable Development*, 2025, ISBN: 978-81-989217-3-4.
- 33. Samrat Biswas, Advances in Heat Transfer Enhancement Methods, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-989217-3-4.
- 34. Suman Kumar Ghosh, *Production of Biodiesel Using Chicken Waste Fats*, in *Research Methodologies in Engineering and Applied Science*, 2025, ISBN: 978-93-6233-761-0.
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- 38. Suman Kumar Ghosh, AI and Machine Learning in Mathematical Modeling: Transforming Science and Engineering, in Engineering for Sustainability, Research, Innovation, and Impact, 2025, ISBN: 978-81-974962-9-5.
- 39. Suman Kumar Ghosh, Ethical Implications of AI Implementation in Smart Manufacturing Systems, in Progress in Material Manufacturing, and Energy Systems, 2025, ISBN: 978-81-974427-1-1.
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- 46. Arijijt Mukherjee, *The Role of Blockchain in Enhancing Supply Chain Transparency and Security*, in *Progress in Materials Manufacturing, and Energy Systems*, 2025, ISBN: 978-81-974427-1-1.
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- 49. Arijijt Mukherjee, Digital Twins in Additive Manufacturing: A Step Toward Industry 5.0, in Interdisciplinary Research Horizons in Science and Technology, 2025.
- 50. Joydip Roy, Review Paper on 3D Printing: Advancements, Applications, and Challenges, in Advanced Paradigms in Transdisciplinary Research, 2025, ISBN: 978-93-49468-955.
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- 52. Md Ershad, Ranjan Kumar & Priyam Mondal, *Chromium Substituted 1393 Bioglass: Synthesis, Characterization, and Potential Biomedical Applications*, in *Advanced Paradigms in Transdisciplinary Research*, 2025, ISBN: 978-93-49468-955.
- 53. Md Ershad & Priyam Mondal, Development and Characterization of Fe-Al2O3 Nanocomposites Doped with CoO and CeO2 and Reinforced with ZrO2, in Dynamic Approaches to Multidimensional Challenges, 2025, ISBN: 978-81-981913-8-0.
- 54. Md Ershad, Advanced Bioactive Glass for Bone Implantation: A Comprehensive Review, in Innovative Solutions and Sustainable Development: Bridging Technology and Science for a Greener Future, 2025, ISBN: 978-93-6674-739-2.
- 55. Md Ershad, Synthesis and Characterization of Gadolinium-Doped Bioglass Ceramics for Enhanced Bone Integration, in Interdisciplinary Research Horizons in Science and Technology, 2025, ISBN: 978-93-6135-833-3.
- 56. Md Ershad, *High-Entropy Alloy-based Nanocomposites for Extreme Environmental Conditions*, in *Interdisciplinary Research Horizons in Science and Technology*, 2025, ISBN: 978-93-6135-833-3.
- 57. Md Ershad, Tailoring the Microstructure and Hardness of Nanocomposites Reinforced with Bioinert Ceramics for Orthopedic Implants, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-

- 989217-3-4.
- 58. Md Ershad, Sustainable Green Composites Reinforced with Nano-Bio Fillers for Structural Use, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-989217-3-4.
- 59. Md Ershad, Synthesis and Characterization of Gadolinium-Doped Bioglass Ceramics for Enhanced Bone Integration, in Progress in Materials Manufacturing, and Energy Systems, 2025, ISBN: 978-81-974427-1-1.
- 60. Md Ershad, Priyam Mondel & Ranjan Kumar, Synthesis of Gd2O3-Replaced 1393 Bioglass to Enhance Mechanical Properties and Biocompatibility, in Advanced Methods for Multidisciplinary Research, 2025, ISBN: 978-81-952903-9-0.
- 61. Sayan Paul, Leveraging AI and NLP for Decision Support in Sustainable Supply Chain Management: A Path to Greener Operations, in Dynamic Approaches to Multidimensional Challenges, 2025, ISBN: 978-81-981913-8-0.
- 62. Sayan Paul, Advancements in Welding Techniques: Enhancing Efficiency, Quality, and Safety, in Progress in Materials Manufacturing, and Energy Systems, 2025, ISBN: 978-81-974427-1-1.
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- 64. Sayan Paul, Integration of Artificial Intelligence in Mechanical Engineering: A Review, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-989217-3-4.
- 65. Soumya Ghosh, *Production of Biodiesel Using Chicken Waste Fats*, in *Research Methodologies in Engineering and Applied Science*, 2025, ISBN: 978-93-6233-761-0.
- 66. Soumya Ghosh, *Modal Analysis of a NACA 0012 Airfoil Wing Using ANSYS Workbench*, in *Research Methodologies in Engineering and Applied Science*, 2025, ISBN: 978-93-6233-761-0.
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- 68. Soumya Ghosh, Surface Characterization of Fiber Laser Texturing on Hastelloy C-276 at Different Temperatures, in Research Methodologies in Engineering and Applied Science, 2025, ISBN: 978-93-6233-761-0.
- 69. Debashis Majumdar, Improving Production Through the Application of Industrial Engineering Methods in a Manufacturing Sector, in Dynamic Approaches to Multidimensional Challenges, 2025, ISBN: 978-81-981913-8-0.
- 70. Debashis Majumdar, The Development and Construction of an Adjustable Wrench Utilizing a Recycled Chain, Nut and Bolt, in Advanced Paradigms in Transdisciplinary Research, 2025, ISBN: 978-93-49468-95-5.
- 71. Sourav Giri, Evaluating the Future of Sustainable Transportation: A Comparative Study of Hydrogen Fuel Cell and Battery Electric Vehicles, in Progress in Materials Manufacturing, and Energy Systems, 2025, ISBN: 978-81-974427-1-1.
- 72. Sourav Giri, Evaluating the Impact of Biofuels on Internal Combustion Engine Performance: A Comprehensive Study, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-989217-3-4.
- 73. Sourav Giri, Energy Harvesting for Industrial Applications: A Pathway to Sustainable Power Solutions, in Machine Intelligence and Materials for Sustainable Development, 2025, ISBN: 978-81-989217-3-4.
- 74. Sourav Giri, Optimizing Micro EDM Drilling: A Review of Process Parameters, Material Removal and Emerging Techniques, in Interdisciplinary Research Horizons in Science and Technology, 2025.
- 75. Sourav Giri, A Comprehensive Review of Thermal Management Systems in Electric Vehicles, in Multidisciplinary Perspectives in Mechanical and Applied Sciences, 2025, ISBN: 978-81-975037-1-9.

### **List of Patents/IPRs**

1. The patent titled 'Deep Learning Based Portable Aquaponics Tunnel for Fish fungal Infections'

It was awarded on 25-02-2025 by the UK PATENT OFFICE. The patent number is 6424606 and it was published/granted in the year 2025. The current status of this patent is 'Granted'.

- 2. The patent titled 'HAND-OPERATED OIL PUMP'. It was awarded on 08-03-2025 by the INDIAN PATENT OFFICE. The patent number is 450784-001 and it was published/granted in the year 2025. The current status of this patent is 'Granted'.
- 3. The patent titled 'FOLDING MOBILE STAND WITH CHARGING MANAGEMENT'. It was awarded on 18-03-2025 by the INDIAN PATENT OFFICE. The patent number is 444654-001 and it was published/granted in the year 2025. The current status of this patent is 'Granted'.
- 4. The patent titled 'MULTIPURPOSE KNIFE'. It was awarded on 01-05-2025 by the INDIAN PATENT OFFICE. The patent number is 445535-001 and it was published/granted in the year 2025. The current status of this patent is 'Granted'.
- 5. The patent titled 'HYBRID SOLAR POWERED CAR'. It was awarded on 31-01-2025 by the INDIAN PATENT OFFICE. The patent number is 202531004915 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 6. The patent titled 'System for monitoring and classifying mosquito repellents'. It was awarded on 31-01-2025 by the INDIAN PATENT OFFICE. The patent number is 202531004916 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 7. The patent titled 'Automatic Food Serving Machine'. It was awarded on 31-01-2025 by the INDIAN PATENT OFFICE. The patent number is 202531004917 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 8. The patent titled 'Modular Biodegradable Solar-Powered Water Purification System'. It was awarded on 31-01-2025 by the INDIAN PATENT OFFICE. The patent number is 202531004918 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 9. The patent titled 'Bioglass Composition for Bone Replacement'. It was awarded on 21-03-2025 by the INDIAN PATENT OFFICE. The patent number is 202531016530 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 10. The patent titled 'Mechanically Controlled Multi-Purpose Squeeze and Transportation Cage for Animals'. It was awarded on 21-03-2025 by the INDIAN PATENT OFFICE. The patent number is 202531016531 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 11. The patent titled 'Bioactive Glass Composition for Bone Healing'. It was awarded on 21-03-2025 by the INDIAN PATENT OFFICE. The patent number is 202531016529 and it was published/granted in the year 2025. The current status of this patent is 'Published'.

- 12. The patent titled 'Natural facial scrub formulation'. It was awarded on 28-03-2025 by the INDIAN PATENT OFFICE. The patent number is 202531021916 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 13. The patent titled 'Piston bowl for a dual-fuel hydrogen-diesel engine'. It was awarded on 28-03-2025 by the INDIAN PATENT OFFICE. The patent number is 202531022103 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 14. The patent titled 'Driving Bell-Integrated Modular Submersible Vessel with Autonomous and Adaptive Control Systems'. It was awarded on 02-05-2025 by the INDIAN PATENT OFFICE. The patent number is 202531040072 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 15. The patent titled 'Solar-Powered Smart Cane with Obstacle Detection and AI-Based Assistive Features'. It was awarded on 02-05-2025 by the INDIAN PATENT OFFICE. The patent number is 202531040073 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 16. The patent titled 'A solar-powered go-kart'. It was awarded on 02-05-2025 by the INDIAN PATENT OFFICE. The patent number is 202531040467 and it was published/granted in the year 2025. The current status of this patent is 'Published'.
- 17. The patent titled 'Smart Shredder for E-Waste Plastic Processing'. It was awarded on 02-05-2025 by the INDIAN PATENT OFFICE. The patent number is 202531040692 and it was published/granted in the year 2025. The current status of this patent is 'Published'.

### **List of Conferences Organized**

- 1. International Conferences on Engineering Design and Computing (ICEDC 2024) Dated 22th February 2024 to 24th February 2024.
- 2. International Conference on Sustainable Research and Development (ICSRD 2024) Dated 25<sup>th</sup> September 2024 to 26<sup>th</sup> September 2024.
- 3. International Conferences on Engineering Design and Computing (ICEDC 2025) Dated 4<sup>th</sup> February 2025 to 6<sup>th</sup> February 2025.

### **Department of Civil Engineering**

### **Brief Details about the Department**

The department of Civil Engineering, Swami Vivekananda University offers state of the art education, well equipped classroom, high end laboratories and cutting-edge research facilities for the students to create, enable, apply and spread knowledge in the advanced field of Civil Engineering. In addition to curriculum courses, the department contributes to value added courses, guest lecture by industry experts, industrial visits and various add on activities for the students to make them future ready technocrats of academia & industry. We are committed to work in emerging areas and to develop sustainable technologies & innovations pertaining to Civil Engineering and its allied sectors.

### **Courses Offered:**

Diploma in Civil Engineering

B-Tech in Civil Engineering

M-Tech in Civil Engineering (With specialization in Structural and Geotechnical Engineering)

Ph.D.in Civil Engineering

### **Faculty Details**

Name of the Teacher	Specialization
Dr. Abir Sarkar	Vibration mitigation, finite element analysis, soil dynamics, application of AI in civil engineering
Dr. Ashes Bannerjee	Flow through porous media, Water quality and quantity estimation and monitoring,
Mr. Sunil Priyadarshi	Soil stabilization, Ground improvement techniques
Dr. Avishek Adhikary	Environmental and geo environmental engineering, wastewater treatment
Ms. Debanjali Adhikary	Geotechnical and Geoenvironmental Engineering, Soil stabilization and Ground Improvement
Dr. Nilanjan Tarafder	All analytical and experimental studies regarding RCC, STEEL and Bridge Structures including earthquake, wind or fire load.
Ms. Sushmita Ghosh	Geotechnical and Environmental Engineering
Dr. Tamal Kundu	Structural Health Monitoring, Structural Dynamics, Earthquake Engineering.
Ms. Indrani Halder	Structural Engineering
Ms. Banya De	Transportation Engineering
Ms. Priyanka Halder	Geo informatics
Mr. Anand Shaw	Urban & Regional Planning

Dr. Partha Sarathi Nayek	Environmental Engineering. Water Resources Engineering
Mr. Saptarshi Sen	Materials Engineering
Mr.Soumya Sadhukhan	Coastal & Ocean Engineering
Mr. Bahnisikha Das	Surveying & Geomatics Engineering
Ms. Sneha Das	soil dynamics, application of AI in civil engineering
Mr. Bappaditya Halder	Geo informatics
Dr. Mofijul Molla	Environmental and geo environmental engineering, wastewater treatment
Ms. Sutapa Paul	Environmental and geo environmental engineering, wastewater treatment
Ms. Supriya Ghosal	Coastal & Ocean Engineering
Mr. Arghya Das	Soil stabilization, Ground improvement techniques
Dr. Argha Kamal Guha	Surveying & Geomatics Engineering
Dr. Bishnu Pada Bose	Vibration mitigation, finite element analysis, soil dynamics, application of AI in civil engineering
Mr. Arka Mitra	Transportation Engineering
Dr. Joy Kumar Mondal	Urban & Regional Planning
Mr. Samir kumar	Materials Engineering
Mr. Sourabh Paul	Surveying & Geomatics Engineering

### **External Members on the Board of Studies:**

Name of the Expert (s)	Designation and Affiliation
Dr. Hasim Ali Khan	Associate Professor, Department of Civil
	Engineering
	Adamas University, West Bengal
	Associate Professor, Department of Civil
	Engineering
	Adamas University, West Bengal
Dr. Abhijeet Dey	Assistant Professor, Department of Civil
	Engineering. Barak Valley, Engineering
	College, Assam Science and Technology
	Karunganj, Assam University, BVEC,
	Nirala.
Dr. Durga Mibang	Assistant Professor, Department of Civil
	Engineering Northeast Frontier Technical
	University, Aalo, Arunachal Pradesh

# Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers:

Mukul Bisui, Shaswata Chatterjee, Abir Sarkar, Rohit Ralli, (28-02-2024). Numerical and Experimental Analysis of Vibration Mitigation Using a Series of Hollow Boreholes. https://doi.org/10.1007/s42417-024-01302-6

Ashes Banerjee, Ayan Chatterjee, Ashwin Singh, Srinivas Pasupuleti, Venkatesh Uddameri (30-07-2024). A risk assessment framework utilizing bivariate copula for contaminate monitoring in groundwater. https://doi.org/10.1007/s11356-024-34417-0

Ashes Banerjee, Sunil Priyadarshi, Samir Kumar (15-07-2024). Proposing a Characteristic Length Definition for Flow Characterization in Porous Media: A Methodology for Estimating Hydraulic Radius. https://doi.org/10.18311/jmmf/2023/43591

Avishek Adhikary, Suchhanda Mondal, Supriya Pal, Sudipta Ghosh (16-10-2024). Attenuation of aqueous Naphthalene through a Constructed Wetland System employing Lightweight Expanded Clay Aggregate. https://doi.org/10.1061/JHTRBP.HZENG-1426

Nilanjan Tarafder, Dr. L. V. Prasad (30-09-2024) Seismic response of bridge pier-pile cap joints using Eco-SCC and Eco-BFRSCC: an experimental study. https://doi.org/10.1007/s41024-024-00508-1

Sunil Priyadarshi, Samir Kumar (15-07-2024). Proposing a Characteristic Length Definition for Flow Characterization in Porous Media: A Methodology for Estimating Hydraulic Radius. https://doi.org/10.18311/jmmf/2023/43591

Debanjali Adhikary, Sourav Ghosh (03-04-2024). REVIEW ON THE POTENTIAL OF BIOMASS BRIQUETTES ASH (BBA), USED AS POZZOLAN IN CEMENT, AS AN ALTERNATIVE TO FLY ASH (FA). https://iaeme.com/Home/article\_id/JCCR\_03\_01\_001

Pal, A., Kundu, T., & Datta, A. K. (2024). Damage localization in rail section using single AE sensor data: an experimental investigation with deep learning approach. Non-destructive Testing and Evaluation, 39(5), 1088-1106. Doi:

https://doi.org/10.1080/10589759.2023.2243004

Kundu, T., Pal, A., Datta, A. K., & Topdar, P. (2025). Study and development of a novel IoT-based ANN model for real-time damage detection in rail section. International Journal of Structural Integrity, 16 (4), 748–764. Doi: https://doi.org/10.1108/IJSI-11-2024-0182

Pal, A., Kundu, T., & Datta, A. K. (2024). Acoustic emission-based assessment of weld effects on the health monitoring of the rail section: an experimental study. Engineering Research Express, 6(1), 015102. Doi: 10.1088/2631-8695/ad26e1

Abir Sarkar, Avishek Adhikary, Tamal Kundu, Debanjali Adhikary, Sushmita Ghosh (July,2024). Innovative Solutions in Civil Engineering: Advanced Techniques and Case Studies, Volume – I.

### **List of Book Chapters**

Book Chapter Publication:

Sunil Priyadarshi, Samir Kumar, Abir Sarkar (February, 2025). Optimizing the use of Reclaimed Paving Materials in Granular Sub Base for Road Construction: An Extensive Analysis. 978-10-3298-036-2

Sunil Priyadarshi, Abir Sarkar (February, 2025). Innovative Solutions for Sustainable Construction: A Comprehensive Study on Environmental Challenges, Structural Optimization, and Performance Evaluation of Bubble Deck Slabs in Concrete Construction. 978-10-3298-036-2

Abir Sarkar, Ashes Banerjee (February, 2025). Optimized Water Supply Network Design for Rural West Bengal: A Case Study. 978-10-3298-036-2

Sunil Priyadarshi, Abir Sarkar (February, 2025). Review Paper on Eccentric Wings in Bridge Deck 978-10-3298-036-2.

Tamal Kundu (February 2025) *Earthquake Epicentre Tracking Using Signal Processing Technique* .978-936233-761-0

Tamal Kundu (February 2025) Earthquake Wave Propagation . 978-936233-761-0

Tamal Kundu (February 2025) Lamb Waves on Plates: A Comprehensive Study .978-936233-761-0

Tamal Kundu (February 2025) Multimodal *Neural Networks: Advancements, Applications, and Future Directions*.978-936233-761-0

Tamal Kundu (February 2025) *The Use of Artificial Intelligence in Building Construction: A Comprehensive Study* .978-936233-761-0

Tamal Kundu (Sep 2024) *Advancements in Structural Engineering through AI: A Comprehensive Review* .978-93-6135-058-0

Debanjali Adhikary (February 2025) *Role of Ammonia Volatilization and Phosphorus Transformation on Wetland Rice Fields* .978-93-5834-191-1

Debanjali Adhikary (Sep 2024) *Investigating Sources, Driving Forces, and Potential Health Risks of Nitrate in Groundwater for Safe Water Supply* .978-93-6135-058-0

Sunil Priyadarshi (February 2025) *Ground Improvement by Stone Column: A Crucial Component for Infrastructure Development in India* .978-93-5834-191-1

Sunil Priyadarshi (February 2025) Innovative Solutions for Sustainable Construction: A Comprehensive Study on Environmental Challenges, Structural Optimization, and Performance Evaluation of Bubble

Deck Slabs in Concrete Construction .978-10-3298-036-2

Sunil Priyadarshi (February 2025) *Review Paper on Eccentric Wings in Bridge Deck.* 978-10-3298-036-2

Avishek Adhikary (February 2025) Evaluation of Laterite Soil's Performance as Liner Material for Ash Pond Sites. 978-93-5834-191-1

Ramprasad Maity – February 2025 – *Soil Stabilization Techniques Using Geopolymer: A Review* – 978-93-5834-191-1

Avishek Adhikary (February 2025) *Growth and Effect on Weed on Wetland Rice Fields* .978-93-6135-058-0

Avishek Adhikary (Sep 2024) Fabrication of Agl-Doped ZnO Employing the Photo-Deposition Technique for the Complete Degradation of Tetracycline. 978-93-6135-058-0

Sushmita Ghosh (February 2025) *Arsenic Laden Drinking Water Treatment: A Review* .978-10-3298-036-2

Avishek Adhikary (February 2025) *Transformation of Heavy Metals and Amelioration of Sodic and Saline Soils on Wetland Paddy Fields: A Review.* 978-10-3298-036-2

Partha Adak (February 2025) A Review on Stone Columns Used for Ground Improvement of Soft Soil . 978-93-5834-191-1

Sushmita Ghosh (February 2025) *Elimination of Arsenic and Iron from Water Utilizing Constructed Soil Filters*. 978-93-5834-191-1

# Conferences, Workshops, and Seminars Organized:

Seminar Organized: Engineers' Day 15th September 2025

Ground Improvement Techniques to Enhance the Bearing Capacity of Weak Soil, Conferences @ ICEDC-2025, SVU Barrackpore.

Optimizing the use of Reclaimed Paving Materials in Granular Sub Base for Road Construction: An Extensive Analysis, Conferences @ ICISE-2024, SVU Barrackpore.

## Department of Electronics & Communication Engineering Swami Vivekananda University

### **Brief Details about the Department:**

The Electronics and Communication Engineering (ECE) program at Swami Vivekananda University is designed to nurture globally competent and industry-ready engineers. The department provides a stimulating academic environment enriched with seminars, live projects, and case studies that inspire innovation, critical thinking, and a passion for technological excellence. By integrating a perfect blend of industry and academia, the program emphasizes practical, hands-on learning experiences alongside strong theoretical foundations. This dynamic approach equips students with the knowledge and skills essential for the design, analysis, development, and maintenance of advanced communication systems, electronic devices, embedded systems, and modern automation technologies—ultimately preparing them to excel in diverse professional and research domains.

### **Course Offered:**

- B. Tech. in Electronics and Communication Engineering
- M. Tech. in Electronics and Communication Engineering (Specialization in VLSI & Microelectonis)
- PhD. In Electronics and Communication Engineering

### **Faculty Details:**

Name of the Teacher	Specialization
Dr. Rajdeep Ray	IOT, Signals Processing, Chaotic Cryptography
Diganta Bhattacharyya	Space Science and Communication using AI/ML
Dr. Debasis Mondal	Electrical Biosensor, Statistical data analysis, IoT based healthcare system, Silicon fabrication technology, FEM based simulation
Ms. Shreya Adhikary	Medical image processing, microscopy development, early cancer detection
Sk Babul Akhtar	Kalman Filter, Precise Point Positioning, Object Tracking, Internet of Things (IoT
Tomal Suvro Sannyashi	Communication Engineering, VLSI
Neelakshi Roy	Space Theory, Antenna Propagation, Mobile Communication, 6G Networking, MIMO Communication
Trisha Paul	Human Brain Signal, IoT
Anushree Khankari	Space Science and Communication
Dr. Debraj Chakraborty	IOT, Signals Processing, Chaotic Cryptography
Dr. Pradipto Maiti	Communication Engineering, VLSI
Dr. Somdeb Chanda	Medical image processing, microscopy development, early cancer detection
Dr. Sagar	Mobile Communication
Dr. Somdatta Paul	IOT, Embedded Systems, & Healthcare Analytics
Dr. Jenifar Sultana	Renewable Energy, Automation
Ms. Sayantani Bhattacharyya	Power Electronics, Electric Drives, Renewable Energy, Automation
Dr. Arindam Sadhu	Electrical Biosensor, Statistical data analysis, IoT based healthcare system, Silicon fabrication technology, FEM based simulation
Dr. Tanmay Sinha Roy	AI & ML, Biomedical Signal Processing, IOT, Embedded Systems, & Healthcare Analytics
Mr. Jayanta Mahata	Human Brain Signal, IoT

#### **External Members on the Board of Studies:**

Name	Designation
Prof. (Dr.) Anshuman Sarkar	Professor, Department of Electronics and Communication Engineering, Kalyani Government Engineering College
Dr. Bandana Barman	Assistant Professor, Department of Electronics and Communication Engineering, Kalyani Government Engineering College
Dr. Somali Sikder	Assistant Professor, Department of Electronics and Communication Engineering, BPPIMT

### **Publication Details (Conference / Patent / Research Papers):**

Mitra, A., Bhowmik, S., Das, S., & Chowdhuri, S. (2024). Performance improvement of three-phase AFE rectifier during switching of loads with fractional feedback current control. Sādhanā, Springer (Indian Academy of Science), SCIE Indexed. https://doi.org/10.1007/s12046-024-02539-3.

Mitra, R. (2024). Natural and artificial fibre reinforced concrete: A state-of-art review. IJE Transactions C: Aspects, ESCI (Web of Science) Indexed. <a href="https://doi.org/10.5829/ije.2024.37.03c.07">https://doi.org/10.5829/ije.2024.37.03c.07</a>.

Pramanick, B., Mandal, N., Mondal, D., RoyChaudhuri, C., & Chakraborty, S. (2018). C-MEMS derived glassy carbon electrodes as sensitive electrochemical biosensors. IEEE Sensors Conference, International. https://doi.org/10.1109/ICSENS.2018.8589538 (ISSN: 2168-9229)

Singh, A., Suresh, M., Sharma, C. S., Mondal, D., & Chaudhuri, C. R. (2017). Optimization of carbon electrodes for electrochemical biosensors: Influence of thickness on redox output. International Conference on Nanotechnology: Ideas, Innovations and Initiatives, International.

Mondal, D., Chaudhary, A., Roy Choudhury, S., Barui, A., Das, S., Chatterjee, J., & RoyChaudhuri, C. (2014). Efficacy of coplanar waveguide sensor for electrical profiling of keratinocytes under varied biomatrix. International Conference on MEMS and Sensors (ICMEMSS), International.

Chaudhary, A., Bag, S., Mondal, D., RoyChaudhuri, C., & Chatterjee, J. (2014). Study of honey dilution effects on keratinocytes using cell-based sensor association with cardinal molecular expression. International Conference on Advanced Materials and Energy Technology (ICAMET), International.

Mondal, D., & Roychaudhuri, C. (2014). Electrical characterization of single biological cell with a microcellular trapping platform. Research Scholars' Day, National.

Mondal, D., & RoyChaudhuri, C. (2013). Electrical characterization of biological cells on porous substrate using COMSOL Multiphysics. COMSOL Conference, National.

Mondal, D., Barui, A., & RoyChaudhuri, C. (2013). Cell growth monitoring of keratinocytes (HaCat) using electric cell substrate impedance sensing (ECIS). 20th West Bengal State Science and Technology Congress, National.

Mondal, D., & RoyChaudhuri, C. (2012). Impedance measurement of single biological cell with a microelectrode trapping platform. Indo-US Workshop on Fabrionics for Healthcare, National.

Mondal, D., Dev Das, R., & RoyChaudhuri, C. (2012). Fabrication of microelectrode traps for electrical characterization of single biological cell. International Conference on Smart Materials, Structures and Systems, International.

Mondal, N., Mondal, D., RoyChaudhuri, C., Barui, A., Dhara, S., & Chatterjee, J. (2011). A simple and sensitive cytosensor-based electrical characterization of in vitro wound healing assay for keratinocytes. IEEE/NIH Life Science Systems and Applications Workshop (LiSSA), International. https://doi.org/10.1109/LISSA.2011.5754152 (ISBN: 978-1-4577-0422-2)

Adhikary, S., Mondal, D., & Sannyashi, T. S. (2024). 5G technology in healthcare: A detailed survey. 2nd International Conference on Engineering Design and Computing (ICEDC), International.

Mondal, D., Adhikary, S., & Sannyashi, T. S. (2024). IoT-based health care monitoring for marginalized people. 2nd International Conference on Engineering Design and Computing (ICEDC), International.

Mondal, D., Adhikary, S., & Sannyashi, T. S. (2024). Electrical characterization of mammalian cells in real-time: A comprehensive review. 2nd International Conference on Engineering Design and Computing (ICEDC), International.

Das, S., Sannyashi, T. S., Mondal, D., Adhikary, S., Ranjan, P., & Chakraborty, T. (2024). Computational study of FeAsn (n=1-4) clusters invoking DFT-based descriptors. 2nd International Conference on Engineering Design and Computing (ICEDC), International.

Sannyashi, T. S., Mondal, D., & Adhikary, S. (2024). Advances and innovations in heart disease detection: A detailed survey. 2nd International Conference on Engineering Design and Computing (ICEDC), International.

Adhikary, S., Mondal, D., & Sannyashi, T. S. (2024). Automated detection and classification of mass calcifications in breast cancer mammograms using image processing techniques. 2nd International Conference on Engineering Design and Computing (ICEDC), International.

Adhikary, S., & Mondal, D. (2024). Electrical studies of single mammalian cell: A review. 2nd International Conference on Integrative Science and Engineering (ICISE), International.

Mondal, D., & Adhikary, S. (2024). Enhancing oral cancer diagnosis through machine learning: ROI selection and classification of microscopic images. 2nd International Conference on Integrative Science and Engineering (ICISE), International.

Sannyashi, T. S., Adhikary, S., & Mondal, D. (2024). An indication of signal processing methods for communication and radar sensing. 2nd International Conference on Integrative Science and Engineering (ICISE), International.

Adhikary, P., Das, P., Sannyashi, T. S., & Mondal, D. (2023). Optical imaging for cancer detection through machine learning approaches. International Conference on Integrative Science and Engineering (ICISE), International.

Ray, R., (Editor-in-Chief). Journal of Innovation and Advancement in Electronic Frontier. Patents

Ray, R., Smart Mattress using Blockchain Technology. Application No. 440243-001. Design Accepted and Published (Journal No. 05/2025, Journal Date: 31/01/2025).

Ray, R., Data Analysis System for Predicting Consumer Satisfaction. Design Application No. 454967-001. Examination Report Generated; Online Reply Document Received (FER generated on 25/06/2025).

Ray, R., Automatic Municipal Water Dispensing System by using IoT. PID 10360SR. Request for Examination Awaited.

**Projects** 

Ray, R., Comprehensive Strategies for Early Identification and Prevention of Cardio-Metabolic Health Risks. Submitted to the Department of Biotechnology, Government of India.

Ray, R., Application of Artificial Intelligence Methods in Identifying Critical Genes in Breast Cancer. Submitted to Swami Vivekananda University under University Minor Research Grant.

### Copyright

Ray, R., From Greenwashing to Green Living: Authentic Sustainability. Diary Number: 3190/2025-CO/L.

#### International Journals

Ray, R., & Co-authors. (2022). Phase-wise stochastic, scaling and dynamical analysis of Pan-India COVID-19 outbreak. International Journal of Electrical, Electronics and Data Communication (IJEEDC), 10(7), 90–96. https://iraj.doionline.org/dx/IJEEDC-IRAJ-DOIONLINE-18926

Ray, R., & Co-authors. (2019). Complexity and periodicity of daily mean temperature and dew-point across India. Journal of Earth System Science, 128(143). Springer. https://doi.org/10.1007/s12040-019-1174-x (SCI, IF: 1.7)

Ray, S., Ray, R., Khondekar, M. H., & Ghosh, K. (2018). Scaling analysis and model estimation of solar corona index. Advances in Space Research, 61, 2214–2226. Elsevier. (SCI, IF: 2.8)

Ray, R., Dey, S., Khondekar, M. H., & Ghosh, K. (2018). Multifractality and singularity in average temperature and dew point across India. International Journal of Advanced Technology and Engineering Exploration, 5(43). https://doi.org/10.19101/IJATEE.2018.542018 (SCOPUS)

Mukherjee, S., Ray, R., Samanta, R., Khondekar, M. H., & Sanyal, G. (2017). Nonlinearity and chaos in wireless network traffic. Chaos, Solitons and Fractals, 96, 23–29. Elsevier. (SCI, IF: 5.6)

Ray, R., & Co-authors. (2017). Characterization of univariate long-term urban internet traffic volume. ICTACT Journal on Communication Technology, 8(4), 1618–1624. (UGC-CARE)

Ray, R., & Co-authors. (2016). Scaling and nonlinear behavior of daily mean temperature time series across India. Chaos, Solitons & Fractals, 84, 9–14. Elsevier. (SCI, IF: 5.6)

Ray, R., Nath, A., & Ghosh, P. K. (2015). Chaos and periodicity in solar wind speed: Cycle 23. Astrophysics and Space Science, 357(2), 1–10. Springer. (SCI, IF: 1.9)

Ray, R., & Co-authors. (2015). Memory persistency and nonlinearity in daily mean dew point across India. Theoretical and Applied Climatology, 119(3–4). Springer. (SCI, IF: 2.7)

### National Journals

Ray, R., & Co-authors. (2022). COVID-19 in India: The dynamics of the demon. BCREC Engineering & Science Transaction, 3(1), 69–76. https://www.bcrecjournal.org/articles.aspx?jid=202201

Ray, R., & Co-authors. (2014). Investigation of dynamical patterns and complexity of rainfall in India. The Bulletin of Engineering & Science, 6(1), 31–34. ISSN: 09747176.

Ray, R., & Co-authors. (2014). Nonlinearity in solar wind speed dynamics. The Bulletin of Engineering & Science, 6(1), 35–38. ISSN: 09747176.

Acharjee, A., Chakraborty, S., Chatterjee, A., Patel, P., & Ray, R. (2012). Natural language processing: Devanagari to English and vice-versa using C#. The Bulletin of Engineering & Science, 4(1), 49–52. ISSN: 09747176.

### CONFERENCE PAPERS International Conferences

- Ray, R., & Co-authors. (2024). Exploratory feature analysis for deep learning based spectrum sensing. Second International Conference on Computer Science, Cyber Security and Information Technology (CCIT), June 29–30, 2024.
- Banerjee, U. K., Das, A. K., Ray, R., & Koner, C. (2023). Secure encryption using bit shuffling. In Internet of Things (IoT): Key Digital Trends Shaping the Future (Lecture Notes in Networks and Systems, Vol. 616). Springer. https://doi.org/10.1007/978-981-19-9719-8\_20
- Ray, R., & Co-authors. (2022). Phase-wise stochastic, scaling and dynamical analysis of Pan-India COVID-19 outbreak. Proceedings of the International Conference on Computer Science, Industrial Electronics, IEEE Forum, Kolkata. https://digitalxplore.org/proceeding.php?pid=1499
- Ray, R., & Co-authors. (2017). Self-organized criticality, causality and correlation of probability of recurrence between daily mean temperature and dew point across India. ICRCICN 2017: IEEE International Conference on Research in Computational Intelligence and Communication Networks.
- Ray, R., & Co-authors. (2017). Characterization of wireless network traffic: Fractality and stationarity. ICRCICN 2017: IEEE International Conference on Research in Computational Intelligence and Communication Networks.
- Ray, R., Nath, A., & Ghosh, P. K. (2009). Temperature-dependent transport properties in GaN single quantum wells. 4th International Conference on Computers and Devices for Communication (CODEC'09), IEEE Photonics Society & Electron Device Society.
- Ghosh, P. K., Dey, A., Nath, A., & Ray, R. (2009). Two-dimensional magneto-electronic transport in CdSe single quantum wells. International Conference on Materials for Advanced Technology (ICMAT'09), Suntec, Singapore.

### National Conferences

- Ray, R., & Co-authors. (2017). Stationarity and fractality in monthly rainfall profile across India. National Conference on Nonlinear Dynamics and its Applications (CNDA-16), February 7–9, 2017.
- Ray, R., & Co-authors. (2007). A comparative analysis for evaluation of two block-ciphers of bit-level implementation. National Symposium on Emerging Trends in IT (ITCON'07), CMR Institute of Technology, Bangalore, August 16–17, 2007, pp. 8–13.

### **BOOK CHAPTERS**

- Ray, R. (2023). Secure cryptography using chaotic algorithm. In Novel Research and Development Approaches in Heterogeneous Systems and Algorithms (pp. 191–216). IGI Global. <a href="https://doi.org/10.4018/978-1-6684-7524-9.ch011">https://doi.org/10.4018/978-1-6684-7524-9.ch011</a>, ISBN13: 9781668475249 | ISBN10: 1668475243 | EISBN13: 9781668475263
- Adhikary, S., Das, S., Naskar, T. K., Maity, S. P., & Barui, A. (2022). Quantitative autofluorescence imaging reveals the potential for cervical cancer detection. In 3rd International Conference on Computational Intelligence in Pattern Recognition (Advances in Intelligent Systems and Computing Series, Springer). https://doi.org/10.1007/978-981-16-2543-5\_41
  . ISBN: 9789819937332.
- Adhikary, S., Mondal, D., & Sannyashi, T. S. (2024). 5G technology in healthcare: A detailed survey. Proceedings of the 2nd International Conference on Engineering Design and Computing (ICEDC).
- Mondal, D., Adhikary, S., & Sannyashi, T. S. (2024). IoT-based health care monitoring for marginalized people. Proceedings of the 2nd International Conference on Engineering Design and Computing (ICEDC).
- Mondal, D., Adhikary, S., & Sannyashi, T. S. (2024). Electrical characterization of mammalian cells in real-

- time: A comprehensive review. Proceedings of the 2nd International Conference on Engineering Design and Computing (ICEDC).
- Das, S., Sannyashi, T. S., Mondal, D., Adhikary, S., Ranjan, P., & Chakraborty, T. (2024). Computational study of FeAsn (n=1–4) clusters invoking DFT-based descriptors. Proceedings of the 2nd International Conference on Engineering Design and Computing (ICEDC).
- Sannyashi, T. S., Mondal, D., & Adhikary, S. (2024). Advances and innovations in heart disease detection: A detailed survey. Proceedings of the 2nd International Conference on Engineering Design and Computing (ICEDC).
- Adhikary, S., Mondal, D., & Sannyashi, T. S. (2024). Automated detection and classification of mass calcifications in breast cancer mammograms using image processing techniques. Proceedings of the 2nd International Conference on Engineering Design and Computing (ICEDC).
- Adhikary, S., & Mondal, D. (2024). Electrical studies of single mammalian cell: A review. Proceedings of the 2nd International Conference on Integrative Science and Engineering (ICISE).
- Mondal, D., & Adhikary, S. (2024). Enhancing oral cancer diagnosis through machine learning: ROI selection and classification of microscopic images. Proceedings of the 2nd International Conference on Integrative Science and Engineering (ICISE).
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### Workshops, Seminars & Conferences:

- The department regularly organizes **national and international conferences**, **faculty lecture series**, **workshops**, **and FDPs**, involving multidisciplinary engineering and technology areas. As a part of a masterplan in 2024-2025 session the department already organized
- An two weeks workshop on Cadence based PCB design An one week workshop on IC Design
- An one week workshop on IOT & Embedded Systems Practices & Applications Technical Seminar and Poster presentation by the students

# Department of Electrical Engineering Swami Vivekananda University

### **Brief Details About the Department:**

The Electrical Engineering course at SWAMI VIVEKANANDA UNIVERSITY is designed with an endeavor to create globally competitive and employable engineers. SWAMI VIVEKANANDA UNIVERSITY offers the students a conducive and rewarding environment by contributing to seminars, live projects, and case studies to pursue ideas, cultivate the spirit of curiosity and sustain a passion for excellence. The perfect blend of Industry-Academia environment develops students with practical hands-on sessions offering a dynamic teaching program for creating a vibrant and successful community of professionals who can develop both concepts and skills essential for the design, analysis, manufacturing, and maintenance of various kinds of Electrical systems and machinery.

### **Course Offered:**

- Diploma in Electrical Engineering
- B. Tech. in Electrical Engineering and Power Engineering (Specialization)
- M. Tech. in Electrical Engineering (Specialization with Power Systems and Power Electronics)
- PhD. In Electrical Engineering

### **Faculty Details:**

Name of the Teacher	Specialization
Dr. Sudip Das	Power Electronics, Electric Drives, Renewable Energy, Automation
Dr. Rituparna Mitra	Power Distribution, Power Quality
Dr. Rituparna Mukherjee	Power System Protection
Dr. Suryendu Dasgupta	HIGH VOLTAGE ENGINEERING, COMPUTATION AND OPTIMIZATION OF ELECTRIC FIELDS FOR HIGH VOLTAGE APPARATUS
Mr. Abhishek Dhar	Power Distribution, Power Quality
Mr. Avik Datta	Control and Instrumentation
Mr. Koushik Chatterjee	Power System Protection
Mr. Saikat Majumder	Hybrid Electric Vehicle
Ms. Arunima Mahapatra	Renewable Energy, Power System
Mr. Promit Kumar Saha	Power Electronics, Renewable Energy, Hybrid Electric Vehicle, High Voltage Engineering, IoT, Smart Grid
Mr. Titas Kumar Nag	Power system, renewal energy
Ms. Susmita Dhar Mukherjee	power system
Mr. Suvraujjal Dutta	Power system Protection
Mr. Sujoy Bhowmik	Power Electronics Converters, Active Power Factor Correction, PWM Rectification
Mr. Parshan Bandopadhayay	Control System, PID Control, Nonlinear System Analysis
Mr. Soumen Pal	Power System Optimization, Micro-grid, Renewable Energy, DERs

Ms. Suravi Singh	Micro-Grid Energy Management System, Renewable Energy, DERs, Smart Grid.
Mr. Sourav Ghosh	Energy Storage Devices, Electrochemical Studies, Renewable Energy
Mr. Joydip Mondal	DERs, Smart Grid.
Mr. Ayan Ghosh	Energy Storage Devices
Mr. Anirban Mondal	Electrochemical Studies
Ms. Ayantika Guria	Renewable Energy

## **External Members on the Board of Studies:**

Name	Designation
Dr. Abhinandan De	Professor, Department of Electrical Engineering, Indian Institute of Engineering Science and Technology, Shibpur
Dr. Sandip Chanda	Professor, Department of Electrical Engineering, Ghani Khan Choudhury institute of Engineering and Technology
Dr. Pritam Kumar Gayen	Assistant Professor, Department of Electrical Engineering, Kalyani Government Engineering College
Dr. Subhra Jana	Assistant Professor, Department of Electrical Engineering, College of Engineering and Management, Kolaghat

## Publication Details (Conference / Patent / Research Papers):

Mitra, A., Bhowmik, S., Das, S., & Chowdhuri, S. (2024). Performance improvement of three-phase AFE rectifier during switching of loads with fractional feedback current control. Sādhanā, Springer (Indian Academy of Science), SCIE Indexed. https://doi.org/10.1007/s12046-024-02539-3.

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## Conferences, Workshop and Seminar Organized:

Workshop on Energy Conservation and Audit, Date: 15th January, 2025.

Hands on Training on Basic Electrical, Date: 14th February, 2025.

Training on Robotics and Automation, Date: 5th March, 2025.

Industrial Visit at Bellmer Industries Pvt. Ltd., Date: 13th March, 2025. Workshop on Robotics and Mechatronics, Date: 14th August, 2025.

#### **School of Management**

## **Brief details of the Department:**

The School of Management (SOM) is committed to equipping students with the skills, knowledge, and abilities required to excel in their corporate careers while managing responsibilities effectively. Over the years, SOM has established itself as a professional institution with a focus on diverse fields such as business management, hospital management, agri-business, hotel and hospitality management, digital marketing, and sectoral business strategies. The school emphasizes innovation, research, expertise, and entrepreneurship to create a knowledge hub for achieving business excellence.

SOM stands out through its unique teaching methodologies and experiential learning approach, supported by a competency-driven curriculum aligned with best practices from leading B-Schools. The department's vision is to attain global recognition by fostering leadership, innovative thinking, and responsible corporate practices through flexible, skill-based management education anchored in impactful research.

The mission of SOM is to deliver quality management education that develops globally competitive business leaders, fosters technology-based innovative research, and promotes entrepreneurial ventures for societal betterment. The department focuses on holistic development, enabling students to excel in core areas such as finance, marketing, human resources, business analytics, and operations management, while encouraging an interdisciplinary perspective. SOM nurtures young minds to become entrepreneurs and leaders, driving positive societal and economic change.

#### **Courses offered:**

#### **Undergraduate (UG)**

- Bachelor of Business Administration (BBA)
- Bachelor of Business Administration in Digital Marketing (BBA DM)
- Bachelor of Business Administration in Hotel and Hospitality Administration (BBA HHA)
- Bachelor of Business Administration in Agri Business Management (BBA ABM)
- Bachelor of Business Administration in Hospital Management (BBA HM)

#### Post Graduate (PG)

- Masters of Business Administration (MBA)
- Masters of Business Administration in Agri Business Management (MBA ABM)
- Masters of Business Administration in Hospital Management (MBA HM)

# Faculty Details:

Name of the Teacher	Specialization
Dr. Atiba Batul	Financial Inclusion, Women Empowerment, Urbanisation, Sustainable Development
Prof. (Dr.) Keya Das Ghosh	Microfinance, Entrepreneurship, Financial inclusion
Mrs. Sayanti Banerjee	Hospitality Management & Operations, Service Quality & Customer Experience, Cultural and Diversity Management, Crisis Management in Hospitality, Job Satisfaction
Ms. Arnita Sur	Behavioural Finance, Marketing Management, Strategic Planning, Financial Management
Ms. Arunima Hazra	Human resource management, environment and sustainability, Healthcare, tourism
Ms. Soumi Chakraborty	Organizational psychology, Diversity & Inclusion, Consumer Behaviour, Welfare of Marginalized Communities
Dr. Anirban Hazra	Microeconomics, econometrics, development economics
Dr. MD. Niyaz Ahmed	E Waste Management, Trade Analytics
Dr. Sanjay Bhattacharya	Economics of Education, Social Sector, Econometrics
Prof. (Dr.) Kallal Banerjee	International Business, Unorganized Sector, E Waste Management, Trade Analytics
Prof. (Dr.) Malayendu Saha	Social Sector, Econometrics
Prof. (Dr.) Pradip Kumar Mallik	Financial inclusion
Mr. Neelanjan Mitra	Bank Merger, Acquisitions & Reforms, Retail Banking, Digital & Cashless Banking, Job Satisfaction, Consumer Behaviour, Social Impact of COVID - 19
Mr. Shibajit Chakraborty	Social Media Influencers & Society, Word-of- Mouth & Consumer Behavior, Value-Driven Marketing Strategies, Employee Well-Being & Organizational Growth, Cashless Systems, Societal Perception
Mr. Sourav Chatterjee	Consumer Purchasing Behaviour
Prof. Arup Dutta	Employee Well-Being & Organizational Growth, Cashless Systems, Societal Perception
Mr. Soumen Nath	Digital Marketing, Product Innovation, Healthcare Marketing

Dr. Koushik Sinha	Consumer Purchasing Behaviour	
Dr. Tridib kumar Chatterjee	Hospital and Healthcare System	
Dr Soumya Mukherjee	Marketing Research, Brand Management, Retail Management, Marketing Communication, Consumer Behaviour, Service Marketing, Human Psychology	
Jyoti Dutta	Healthcare Marketing	
Dr Avik Das	Empirical Asset Pricing and Market Microstructure Analysis, Financial Market Connectivity, Market Efficiency and Behavioural Finance, Spillover Analysis and Systemic Risk,	
Shafique Ahmed	Financial Market Connectivity	
Tanmoy Mazumder	Marketing Communication, Consumer Behaviour, Service Marketing, Human Psychology	
Sucharita Debnath	Trade Analytics	
Mantosh Sharma	E Waste Management	
Shivani Hazra	Behavioural Finance, Marketing Management, Strategic Planning, Financial Management	
Ananda Mohan Paul	International Business, Unorganized Sector, E Waste Management, Trade Analytics	
Bhaskar Karmakar	Financial Inclusion, Women Empowerment, Urbanisation, Sustainable Development	
Moumita Saha	Microfinance, Entrepreneurship, Financial inclusion	
Gargi Ghosh	Hospitality Management & Operations, Service Quality & Customer Experience, Cultural and Diversity Management, Crisis Management in Hospitality, Job Satisfaction	
ARPITA DAS	Behavioural Finance, Marketing Management, Strategic Planning, Financial Management	
Anshuman Das	Social Sector, Econometrics	
MS. KASTURI GHOSH	Digital Marketing, Product Innovation, Healthcare Marketing	
Dr. Tushar Kanti Dey	Marketing Research, Brand Management, Retail Management, Marketing Communication, Consumer Behaviour, Service Marketing, Human Psychology	
BIKRAM PRASAD	Microfinance, Entrepreneurship, Financial inclusion	
Moupiya Bose	Employee Well-Being & Organizational Growth, Cashless Systems, Societal Perception	
	Microfinance, Entrepreneurship, Financial	

Dr Shantanu Chakraborty	Digital Marketing, Product Innovation, Healthcare Marketing
Jeet Goswami	Financial Inclusion, Poverty, Women Empowerment
AYANANGSHU MANDAL	E Waste Management
Dr. Mainak Chakraborty	Consumer Purchasing Behaviour
MS. Shilpa Saha	Economics of Education, Social Sector, Econometrics
Moumita Acharya	Agro-MSME, Women Entrepreneurship
Souvik Majumdar	Entrepreneurship, Artificial Intelligence, Data Analytics
Chandrika Banerjee	Hospital and Healthcare System
DR. Sanjukta Mallick Chakraborty	International Business, Unorganized Sector, E Waste Management, Trade Analytics
SAMYO BASU	Digital Marketing, Product Innovation, Healthcare Marketing
Risant Sarkar	International Business, Unorganized Sector, E Waste Management, Trade Analytics
SOUMICK TALUKDAR	Bank Merger, Acquisitions & Reforms, Retail Banking, Digital & Cashless Banking, Job Satisfaction, Consumer Behaviour, Social Impact of COVID - 19
Kaustav Madhab Chatterjee	Human resource management, environment and sustainability, Healthcare, tourism
Mr. Anirban Chowdhury	Microfinance, Entrepreneurship, Financial inclusion

## **External Members of Board of Studies:**

Prof. (Dr.) Arup Kumar Baksi	Professor, Dept. of Management and Business Administration, Aliah University
Prof. (Dr.) Kaushik Kundu	Professor, Dept. of Management and Business Administration, Aliah University
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Dr. Nibedita Debbarma Chatterjee	COO, Vivekananda Hospital, Durgapur
Mr. Subrata Roy	Founder & Director, Hi-tech Animation Pvt. Ltd.

## Paper Publication (Conference/Journal) Details of faculties:

- 1. Environment-related Trade Barriers: An Analysis of Indian Leather Sector, TERI Press, 3 (2), pp 12-17, 2009, https://bookstore.teri.res.in/docs/newsletters/GALT March 2009.pdf
- 2. Trade in Energy Services under Different Regional Agreements BCIM, BIMSTEC+1 and ASEAN+4, International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS), UGC Listed, ISSN 2278-2540, Volume VI, Issue XII, December 2017.
- 3. Trade in Energy Services in BCIM, BIMSTEC + 1 and ASEAN + 4 Regions-potentials and Challenges, SSRN (Elsevier), Energy Engineering e-journal, Vol 1, No 7: Apr 20, 2018.

- 4. Economic cooperation and trade potential of Indian energy sector products between India and BCM region, Journal of Management Research and Analysis, DOI: 10.18231/2394-2770.2018.0027, UGC Listed ISSN No: -2394-2762, Volume: 5, Issue: 2, Year: 2018, Page 170177.
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- 6. A brief Analysis of the Patents associated with the Indian Electrical energy sector, International Journal of Advanced Scientific Research and Management (IJASRM), UGC Listed, ISSN 24556378, Volume 3 Issue 6, June 2018.
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- 12. Dedicated Freight Corridor (DFC) a Game Changer for The Indian Economy-An analytical study, SSRN (Elsevier), Economics research network: Professional and practitioner papers Institutional and Transition Economics policy paper series, 14(19). Nov 28, 2022.
- 13. Impact of Third Sector for countries Socio-Economic development particularly for PACS: A study with reference to West Bengal, Journal of Electronics Information Technology Science and Management, (Scopus and UGC Care Journal), ISSN: 0258-7982, 12(7), 2022, pp 54-75
- 14. Theoretical Framework for Social Media Marketing, Education, Research and Analysis
- 15. (Kalyani Foundation for Media Science and Community Research), ISSN: 2348-571X, 9(2), 2022.

- 16. Socioeconomic Benefits of Dedicated Freight Corridor: An Analytical Study, The IUP Journal of Supply Chain Management (IJSCM), ISSN: 0972-9267, IUP publication (A division of ICFAI Society), 19(2), June 2022.
- 17. FDI flow in Energy Sector among BCIM, BIMSTEC+1 and ASEAN+4 sub-regional alignments, Journal of Environmental Science and Economics (Web of Science index), ISSN: 2832-6032, 1(3), 2022, DOI: https://doi.org/10.56556/jescae.v1i3.226.
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- 19. Impact of Artificial Intelligence (AI) and Internet of Things (IOT) on Health care Sector, Book Chapter in the Edited Volume titled Green Industrial Applications of Artificial Intelligence and Internet of Things (IoT) by Bentham Science Publishers Pvt. Ltd.,2022.
- 20. Post-Covid Transformation in Banking Environment: Emerging Needs for Training and Development Programs, Book Chapter in the Edited volume titled "Sustainable Strategies for Economic Growth and Decent Work: New Normal" publisher Ermington, New South Wales: Lincoln Research and Publications Limited, 2022, ISBN 9780648879886Libraries Australia ID 72742631
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- 27. Economic Integration and movement of FDI among BIMSTEC regions: Evaluation of trade potential in Organic Cosmetics, SOBE conference, Adamas University, Kolkata, March 16-17, 2023.
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- 49. A comparative analysis on entrepreneurial intentions among the students of MBA and M.Com programmes of a state-aided university in West Bengal, International Journal of Research in Management, DOI: https://doi.org/10.33545/26648792.2024.v6.i1d.158, 2024; 6(1): 301-306
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- 54. Unveiling Cultural Diversity in Indian Literature: A Comparative Analysis, International Journal of Cultural Studies and Social Sciences, Vol. XX, No. XXIII, ISSN No. 2347-4777 (PeerReviewed, UGC-CARE listed Journal)
- 55. Crisis Management in History: How Leaders Handled and Overcame Adversity in Different Time Periods, International Journal of Financial Management and Economics, 2024, Vol 7 Issue 1, https://doi.org/10.33545/26179210.2024.v7.i1.268
- 56. Extended Analytics in Research Methodology across Various verticals: A Review, International Conference on Multidisciplinary research methodology & IPR 2023, ISBN 9788197653568
- 57. Assessment of Quality in IPD and OPD services in Health care Sector: An empirical investigation, 2023 IEEE R10 Humanitarian Technology Conference (HTC), 2023
- 58. A Generic platform-independent Research Methodology Framework Converging in Product commercialization, International Conference on Multidisciplinary research methodology & IPR 2023, ISBN 9788197653568
- 59. Intra-regional trade on organic cosmetics and current status of value Chain among BIMSTEC regions, International Conference of KSAS and AnSI, February, 2024.
- 60. Evaluation of Trade Potentialities Using Panel Data Analytics Method Concerning Asia Pacific Regions, Application of Data Analytics in Modern Business Decisions, Swami Vivekananda University, ISBN 978-93-5980-076-9, https://doi.org/10.5281/zenodo.11181360
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- 62. An investigative study of past 50 years on Relies of Structural Changes: Exploring the connections between Indian Tradition and Economic progress, Through the Postcolonial Lens an Anthology of Critical Essays, Aadi Publications, ISBN: 978-93-92586-82-8, pp 120-135

- 63. Navigating the VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) of Green Cosmetics for Youths in India, Exploring the Dynamics of Business Decisions in Present VUCA World ISBN No: 978-93-3406575-6
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- 65. Regional trade and international production Network: The context of Automobile industry in Asia, Trade in Transition from Agriculture to Innovation, Trade, Industry and Society, ISBN: 978-81974325-8-3
- 66. Understanding Sustainable Development Goals from Students' perspective in India: a Case Study approach, Trade in Transition from Agriculture to Innovation, Trade, Industry and Society, ISBN: 978-81-974325-8-3
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## Patent Details of faculties:

- 1. Examining the effects of product descriptions, reviews, and ratings on consumer purchase decision Inventor(s): 1. Prabhakar Bethapudi 2. Shivani Hazra 3. Prof. Nagashree 4. Dr. Kallal Banerjee 5. Sourav Chatterjee 6. Dr. Vijaya Lakshmi V 7. Nilima Das 8. Dr. Pratheep K Published: 2023-05-05
- 2. An innovative time management system for increased productivity Inventor(s): 1. Dr Ashok D Tedmal 2. Shivani Hazra 3. Malar Velze M 4. Dr. Kallal Banerjee 5. Sourav Chatterjee 6. Dr. Nazia Jamal 7. Dr. Santhini S 8. Dr.Shishina Srinirasa, Published: 2023-06-02
- 3. Computing Device for Supply Chain Optimization through Advanced AI and Machine Learning. Swami Vivekananda University, Inventor(s): Dr. Kallal Banerjee, Mr. Soumen Nath, Dr. Mainak Chakraborty, Mr. Ayanangshu Mondal, Ms. Soumi Chakraborty, Mr. Souraqv Saha, Mr. Sourav Chatterjee. Intellectual Property Office, Government of India. [Design Application Number 6341361]
- 4. Innovative Wearable Sociometric Device for Enhanced Analysis and Optimization of Workplace Team Dynamics. Swami Vivekananda University, Inventor(S): Neelanjan Mitra, Amitabha Gupta, Dr. Anirban Hazra, Dr. Kallal Banerjee, Sourav Saha, Tanmoy Mazumder, Soumen Nath, Soumi Chakraborty, Saheli Ghoshal. Intellectual Property Office, Government of India. [Design Application Number 409213-001]
- 5. A system for leveraging AI and data analytics for predictive modeling of consumer green purchasing behavior and method thereof, Inventor(S): Dr. Kallal Banerjee, Mr. Soumen Nath, Dr. Mainak Chakraborty, Mr. Ayanangshu Mondal, Ms. Soumi Chakraborty, Mr. Souraqv Saha, Mr. Sourav Chatterjee. Intellectual Property Office, Government of India. [Patent application number 202331042494 A]
- 6. Technical writing with AI in BM platforms, Inventor(S): Swami Vivekananda University, Inventor(S): Neelanjan Mitra, Amitabha Gupta, Dr. Anirban Hazra, Dr. Kallal Banerjee, Sourav Saha, Tanmoy Mazumder, Soumen Nath, Soumi Chakraborty, Saheli Ghoshal. Intellectual Property Office, Government of India. [Patent application number [IND 409213-001]
- 7. "Analysis of Student's Time Spending for Newspaper Reading to Attain Effective English Communication", Neelanjan Mitra & Others, Intellectual Property India, Office of the Controller General of Patents, Design and Trade Marks, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India. [Patent Application Number 202331042374 A]

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- 9. "Wearable Sociometric Device", Neelanjan Mitra & Others, Intellectual Property India, Office of the Controller General of Patents, Design and Trade Marks, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India. [Patent Number: 409213-001, Serial Number: 167380]

## **Book Chapter Details of faculties:**

- Marketing Management (Referencing the Hospital Industry) Author: Sourav Pal and Dr. Kallal Banerjee ASIN: B0C7RZ8NQP Publisher: Taurean Publications Language: English
- 2. The Fundamentals of Research Methodology, Authors: Prof. (Dr.) Kallal Banerjee, Dr. Mainak Chakraborty, Mr. Soumen Nath, Mr. Sourav Chatterjee Publishers: Infinity Publication Pvt. Ltd ISBN: 978-93-92917-22-6 ISBN-10: 93-92917-22-8 DIP: 18.10.9392917228 DOI: 10.25215/9392917228
- 3. Management Principles and Practices: Concept and Cases Author: Abanti Aich, Dr. Kallal Banerjee and Dr. Pikash Pratim Maity ISBN: 978-81-975031-0-8 Publisher: Taurean Publications
- 4. Neelanjan Mitra. Unlocking the Potential of Big Data Analytics for Contemporary Business Judgement Making Processes. Application of Data Analytics in Modern Business Decisions. Issue: I, Page No. 19-33 ISBN: 978-93-5980-076-9 https://doi.org/10.5281/zenodo.11181360 Neelanjan Mitra. Importance and Challenges of Organizational Transformation and Collaboration in the Present VUCA World. Exploring the Dynamics of Business Decisions in Present VUCA World. Issue: I, Page No. 3-21, ISBN: 978-93-3406575-6
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- 28. Soumi Chakraborty. 'The Concept of Multi-level Marketing Ongoing Controversial Financial Practices'. 'Strategic Financial Innovations Emerging Trends and Policies' with ISBN 978-89758942-3
- 29. Soumi Chakraborty. 'The Application of Augmented Reality & Virtual Reality in New Ag Tourism'. 'Application of Data Analytics In Modern Business Decisions' with ISBN 978-93-5980-076-9

#### **Department of Computer Science**

#### **Brief Details about the Department**

The Department of Computer Science at Swami Vivekananda University (SVU), Barrackpore, is dedicated to providing high-quality education and training in the field of computer science through programs such as the Bachelor of Computer Applications (BCA), B.Sc. (Hons.) in Advanced Networking and Cyber Security, Master of Computer Applications (MCA), M.Sc. in Advanced Networking and Cyber Security. The department emphasizes a balanced approach between theoretical knowledge and practical skills, offering state-of-the-art computer labs, smart classrooms, and a wellstocked library to support learning and research. Its highly qualified faculty, with rich academic and industry experience, actively engage in research and development while mentoring students. The department fosters holistic student growth through workshops, seminars, hackathons, coding competitions, and industry collaborations that provide live projects, internships, and placement opportunities. By combining rigorous academics, hands-on experience, and industry exposure, the Department of Computer Science at SVU aims to prepare students to excel in the ever-evolving field of computing, encouraging innovation, problem-solving, and leadership to meet the challenges of the modern technology landscape. Since its foundation, the department has been nurturing the hidden skills of aspiring Computer Application experts. The faculty members of this department are highly qualified and hold years of experience in this line. With their dedication and art-of-state infrastructure, the Computer Application Department has been supporting its students with an inclusive and positive study environment. Students are encouraged to participate in multiple seminars and conferences to cultivate their skills. The department also organizes regular practical sessions to give hands-on experience and workshops and special lectures to expand the knowledge barriers of students. In short, the Department of Computer Science at Swami Vivekananda University, Barrackpore, offers an all-rounded opportunity for budding professionals of the future.

#### **Courses Offered:**

#### **Department of Computer Science**

- **Undergraduate Programs** 
  - Bachelor of Computer Application (BCA)
  - B.Sc. (Hons.) in Advanced Networking and Cyber Security
- **❖** Postgraduate Programs
  - Master of Computer Application (MCA)
  - M.Sc. in Advanced Networking and Cyber Security
  - **❖** Doctoral Program (Ph.D.)
    - Ph.D. in Computer Science

# Faculty Details

Name of the Teacher	Specialization
Dr. CHAYAN PAUL	Machine Learning, Natural Language Processing
MR. JAYANTA CHOWDHURY	Machine Learning, Cloud Computing
DR. ABHIJIT PAUL	IoT Technology, Sensor Network
MS. LIPIKA MUKHERJEE PAL	Machine learning
MS. SUTAPA NAYAK	Machine Learning, Deep Learning, Multimodal Large Language Models
MS. DIPAM MISHRA	Machine Learning, Natural Language Processing
MS. BIJAYA BANERJEE	Data Science, IOT, supply chain, sustainable development
MS. SUPARNA BANDYOPADHYAY	Neural network, Machine learning (Tool: DL, nonlinear data forecasting, probability models)
MS. DIYOTIMA GHOSH	Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning
MS. PAYAL BOSE	Imaging System, Medical Imaging, Pattern Recognition, Computer Vision, Affective Computing, Computational Intelligence
MS. SANGITA BOSE	Deep Learning and Neural Networks, Explainable AI (XAI), Natural Language Processing (NLP), AI Ethics and Fairness, AI for Healthcare, Data Mining and Knowledge Discovery, Predictive Analytics, Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning.
MR. NISITH RANJAN ADHIKARI	Cloud Computing
MS. ARIMITRA BASU	Computer Vision & Image Processing
DR. SOMSUBHRA GUPTA	Machine Intelligence
MR. MANISH KUMAR DUBEY	Time Series Analysis, Data Visualization, High-Performance Data Processing, Scalable Machine Learning
MS. SUKRITI SANTRA	IoT Technology, Sensor Network
Dr. Rana Majumdar	Data science
Dr. Santanu Roy	Explainable AI (XAI), Natural Language Processing (NLP)
Dr. Anindya Bose	Generative AI
Mr. Saikat Banerjee	AI, ML

Mr. Subhashis Adhikari	Machine Learning, Deep Learning, Multimodal Large Language Models
Mr. Ranjit Senko	Computer Vision & Image Processing
Ms. Tanusree Gupta	AI, ML
Ms. Rakhi Chakraborty	Machine Learning, AI, Generative AI, Android Development, IOS Development, NLP, Virtual Reality(VR) and Augmented Reality(AR), Blockchain
Ms. Dipannita Basu	Data Science
Ms. Saswati Rakshit	Machine Learning, Deep Learning, Multimodal Large Language Models
Mrs. Swarnali Daw	Cloud Computing
MS. PARAMITA KUNDU MAJI	Machine Learning, AI, Generative AI, Android Development, IOS Development, NLP, Virtual Reality(VR) and Augmented Reality(AR), Blockchain
Dr. Sahana Das	Machine Intelligence
Ms. Chandrima Sinha Roy	Machine Learning, Natural Language Processing
Mr. Abhisek Roy	Machine Learning
Ms. DIPANNYTA NANDI	Web Techonology
Dr. Santanu Modak	Machine Learning, AI, Generative AI, Android Development, IOS Development, NLP, Virtual Reality(VR) and Augmented Reality(AR), Blockchain

## **External Members on the Board of Studies:**

**Journal Publications** 

Prof. (Dr.) Amlan Chakrabarti	Head IT & Tech. Innovation Cell, Dept. of Higher Education, Govt. of West Bengal, Professor and Director, A.K. Choudhury School of IT, University of Calcutta
Prof. Jyostna Kumar Mandal	Professor, Department of Computer Science and Engineering (erstwhile Director, IQAC, University of Kalyani
Dr. Soumya Sen	Assistant Professor (Stage-III) A.K. Choudhury School of IT University of Calcutta

# Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers

1. A. Banerjee Majumder, S. Gupta, D. Singh, S. Majumder. "An Ensemble Model for Predicting Cardiovascular Disease utilizing Nature Inspired Optimization."

Baghdad Science Journal, ISSN 2411-7986, 2024. https://doi.org/10.21123/bsj.2024.9973 (Scopus, ESCI)

2. Banerjee Majumder, S. Gupta, D. Singh, S. Majumder. "Intelligent Healthcare for Cardiac Patients utilizing Neural Networks, K-Means

- Clustering, and Ad Hoc Routing." Science Engineering and Health Studies, Vol. 18, 2405007, pp. 1-12, 2024. <a href="https://doi.org/10.69598/sehs.18.24050007">https://doi.org/10.69598/sehs.18.24050007</a> (Scopus)
- 3. Thakur, S.K. Gupta, S. Gupta. "Heart Disease Prediction using Machine Learning and Multi-Agent Systems." *Indian Journal of Natural Sciences*, Vol. 15, Issue 84, pp. 75972–75980, 2024. (Web of Science)
- 4. Roy, S. Gupta, P. Das, R.K. Mondal. "NOODLE: An Innovative, Affordable Virtual Learning Device for Inclusive Education."

Educational Administration: Theory and Practice, Vol. 30, No. 1, pp. 4664-4674, Jan 2024.

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Datta,
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 Som.
 Ubiquitous Hand-Held Device's SIGMA LFSR Driven Security Model."
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#### **Book Chapters (National and Institutional Publishers)**

- 1. A. Datta, S. Gupta, S. Som. "Exploring USB Security of Hand-Held Devices." (ISBN 978-93-6135-962-0) DOI: 10.22271/ed.book.2972.
- 2. S. Dutta Ghoshal, S. Saha, S. Mukherjee, S. Gupta. "Geo-Locational Data Analysis using Machine Learning."
- 3. S. Biswas, A. Banerjee, S. Gupta. "Heart Disease Prediction from Symptom Analysis Using Machine Learning."
- 4. R. Maity, S. Gupta. "Anti-Fraud System for Online Card Transaction using Machine Learning and Data Science."
- 5. P. Pradhan, S. Gupta. "Prediction of Vehicular Accidents Using Machine Learning."
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- 10. Bose, S. (2024). *Application of machine learning in smart education technology*. Swami Vivekananda University. ISBN: 978-81-974233-2-1.
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- 12. Bose, P., & Nag, S. (2024). Recommender systems in course selection for smart education technology. Swami Vivekananda University. ISBN 978-81-974233-2-1.
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- 14. Mondal, R. K., & Dubey, M. K. (2024). Applications of Internet of Things (IoT) in Smart Cities. Swami Vivekananda University. ISBN: 978-81-974233-0-7.
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#### **Conference paper published (Book)**

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Books (Published)

- 1. A. Datta, S. Gupta, S. Som. "Exploring USB Security of Hand-Held Devices." (ISBN 978-93-6135-962-0) DOI: 10.22271/ed.book.2972.
- **2.** S. Dutta Ghoshal, S. Saha, S. Mukherjee, S. Gupta. "Geo-Locational Data Analysis using Machine Learning."
- **3.** S. Biswas, A. Banerjee, S. Gupta. "Heart Disease Prediction from Symptom Analysis Using Machine Learning."
- **4.** R. Maity, S. Gupta. "Anti-Fraud System for Online Card Transaction using Machine Learning and Data Science."
- 5. P. Pradhan, S. Gupta. "Prediction of Vehicular Accidents Using Machine Learning."
- **6.** A. Datta, S. Gupta, S. Som. "USB Security of Hand-Held Devices." (All published 7 Oct 2024; ISBN 978-93-6135-962-0; DOI: 10.22271/ed.book.2972)
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#### **Patents**

- 1. Music Therapy Device for Deaf and Dumb Appl. No. 202331085483 A 19 Jan 2024.
- 2. Robotic Vehicle using ATMEGA328 Microcontroller, Ultrasonic Sensor and Bluetooth Appl. No. 202431006559 A 9 Feb 2024.
- 3. Hybrid Compiler Appl. No. 202431039789 A 19 Jul 2024.
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- 5. Smell Sensing and Actuation using Embedded Device over the Network Appl. No. 202431040109 A 9 Aug 2024.
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- 25. Santra, S., Kumar, T., Bishoi, B., Saha, S., Bose, S., & Chowdhury, J. (2024, December 5). *Plant leaf disease detection using deep learning*. Application No. 202431095911 A. Swami Vivekananda University.
- 26. Chowdhury, J., Gupta, S., Sarkar, A., Mondal, G., Das, A., Saha, S., & Bose, S. (2024, November 30). Motion Maze Where gesture leads to gaming adventures. Swami Vivekananda University. Application No. 202431094152 A. Filed 30 November 2024; Published 6 December 2024.
- 27. Chowdhury, J., Sarkar, A., Ash, D., Sen, S., Saha, R., Mitra, S., Patra, T., Saha, S., & Bose, S. (2024, December 3). Virtual trial room. Swami Vivekananda University. Application No. 202431095278 A. Filed 3 December 2024; Published 13 December 2024.

## Conferences, Workshops, Seminars organized

- 1. International Conference on Engineering Design and Computing (ICEDC-2025) 3rd edition, held on 4-6 February 2025.
- 2. Covers topics in engineering design, computing, etc. 2nd International Conference on Engineering Design and Computing (ICEDC-2024)
- 3. Workshop titled "Introduction to Artificial Intelligence for Cyber Cell Applications" was held in collaboration with Barrackpore police Commissionerate on May 8, 2025

## DEPARTMENT OF ENGLISH

#### **About the Department:**

The Department of English at Swami Vivekananda University, Barrackpore, is a hub for critical thinking, literary analysis, and interdisciplinary research. Since its inception, the department has been dedicated to the creation of an intellectual curiosity, encouraging students to engage with literature, culture, and critical theories from diverse perspectives.

Backed by a team of highly qualified and experienced faculty members, the department seamlessly integrates academic excellence with industry-oriented skill development. The faculty not only introduces students to the works of renowned literary figures but also conducts specialized training sessions designed to enhance career-oriented competencies in research, writing, and cultural studies. Emphasizing interdisciplinary learning, the department actively engages students in seminars, literary workshops, and expert lectures, creating a dynamic environment for scholarly discourse. Students are encouraged to cultivate analytical, creative, and critical thinking skills, empowering them to contribute meaningfully to the fields of literature, linguistics, and cultural studies.

Following the UGC-recommended curriculum, the department ensures a comprehensive and contemporary learning experience, preparing students for both academic and professional success. The Department of English stands as a center of advanced learning, promoting a holistic approach to literature, culture, and communication in today's evolving academic landscape.

#### **Courses Offered:**

- M.A. in English
- Ph.D. in English

# **Faculty Profile:**

Name of the Teacher	Specialization
Prof. (Dr.) Rajnath Bhat	Critical Prison Studies, Genocide Studies, South Asian Literature, Phenomenology
Dr. Rituparna Chakranorty	Postcolonial Studies, Gender Studies, Tagore Studies
Dr. Shubham Bhattacharjee	Modernism and Post Modernism
Mr. Sudipta Dutta	Sports Humanities, Myth and Criticism, Ecocriticism
Mr. Agnideepto Datta	Critical Prison Studies, Genocide Studies, South Asian Literature, Phenomenology
Dr. Madhumita Roy	Tagore Studies, 19th Century Bengali Literature
Dr. Hindol Chakraborty	Art and the Sublime Romantic Literature Memory Studies Literary Theory and Criticism Urdu Poetry
Mr. Anirban Banerjee	Folklore, Mythology, Indian English Literature
Ms. Natasha Chatterjee	Postcolonial studies, Feminist Literature, Indian English Literature
Dr. Tirna Sadhu	Postcolonial Literature, Early Modern British Literature, Diaspora Studies, Dalit Studies, Partition Studies, Transgender Studies.
Dr. Shreyoshi Dhar	Psychoanalysis, Gender Studies, Victorian Literature
Mr. Debarshi Arathdar	Cognitive Literary Studies, Narratology, Philosophy of Mind, Contemporary Literary Theory, Interface between AI and Literature
Dr. Soumyarup Bhattacharjee	Gothic Literature, South and Southeast Asian Literature, Postcolonial Literature, Horror Literature and Cinema
Dr. Manish Prasad	Tagore Studies, 19th Century Bengali Literature
Dr. Moupikta Mukherjee	Folklore, Mythology, Indian English Literature
Dr. Shantanu Siuli	Sports Humanities, Myth and Criticism, Ecocriticism
Dr. Priyanka Dey	Critical Prison Studies, Genocide Studies, South Asian Literature, Phenomenology
Dr. Micah K Thambi	Postcolonial Literature, Early Modern British Literature, Diaspora Studies, Dalit Studies, Partition Studies, Transgender Studies.
Ms. Sonakshi Mukherjee	Cognitive Literary Studies, Narratology, Philosophy of Mind, Contemporary Literary Theory, Interface between AI and Literature
Mr. Debashis Roy	Gothic Literature, South and Southeast Asian Literature, Postcolonial Literature, Horror Literature and Cinema

Sl	Name	Affiliation
No.		
1.	Prof. (Dr.) Sanjukta Dasgupta	University of Calcutta
2.	Prof. (Dr.) Sharmistha Chatterjee	Aliah University
3.	Prof. (Dr.) Pinaki Roy	Raiganj University

## Seminars, Conferences, and Workshops Organize:

- •International Conference on Nation, Internation and Transnation: Culture, Society and Politics in Tagore and his Contemporaries
- International Conference on Linking Latitudes: Postcolonialism and After
- International Conference on Scotland, India and the World: Negotiating the Transcultural Imagination
- International Conference on Transactions: History, Culture and Identity in Australia and India
- International Conference on Restructuring The Canon:Gender, Transgender and Subversion of Identity
- International Conference On Literature, Media, Cultural Studies: Symbiosis And Emerging Trends
- Scripting Sustainable Development Goals: Strategies of Affirmative Action and Capacity Building
- Redefining Ageing: Towards Narrativizing a New Generic Formation
- Successfully organized a 12-Days' Faculty Development Programme from 01-16 April, 2025 where more than 220 participants registered and around 155 participants were certified after completing the Programme.
- Successfully organized a 15-Days' Students' Internship Programme from 06 July –
   14 August, 2025 on "From Manuscript to Marketing: The Basics of Book Publication" in collaboration with Penprints Publication.
- Successfully organized a 1-Day Workshop on 08 September, 2025 titled:
- "Entrepreneurship and Research Opportunities for Social Science: The Future Pathways" in collaboration with the University's Institution's Innovation Council.
- Successfully conducted a 2-Days' Soft-Skill Development Programme from 11-12 September, 2024 as part of the Department's Social Outreach Activities, in collaboration with Barrackpore Police Commissionerate. The following faculty members were involved as instructors:
- ✓ Dr. Rituparna Chakraborty (Dept. of English)

- ✓ Dr. Shreyoshi Dhar (Dept. of English)
- ✓ Dr. Soumyarup Bhattacharjee (Dept. of English)
- ✓ Mr. Agnideepto Datta (Dept. of English)
- ✓ Dr. Nilanjana Mitra (Dept. of Psychology)

## **Research Project:**

Successfully submitted the ICSSR Sponsored Research Project titled "Post-Covid Era and the Zero Generation: Vulnerability, Resilience and Adaptive Capacity in Ageing Communities of Selected Urban Spaces of North-East India" (Award Letter No. 108/VVB@2047/2024-895/ISD-A/SCD dated 20.09.2024). The following faculty members were involved as investigators:

- ✓ Dr. Rituparna Chakraborty (Dept. of English): Principal Investigator
- ✓ Dr. Shubham Bhattacharjee (Dept. of English): Co-Principal Investigator
- ✓ Dr. Pramiti Roy (Dept. of Journalism & Mass Communication): Co-Principal Investigator
- ✓ Dr. Nilanjana Mitra (Dept. of Psychology): Co-Principal Investigator
- ✓ Dr. Bidisha Ghosh (Dept. of Biotechnology): Co-Principal Investigator
- ✓ Dr. Priyajit Banerjee (Dept. of Biotechnology): Co-Principal Investigator

### **Publications in Journals:**

<b>List of Authors (First</b>	Departm	Title of the Paper	Journal	Year of	Indexed
author along with co-	ent		Name	Publicat	
authors				ion	
Dr. Rituparna	English	The Golden Age	Educatio	2024	SCOPUS
Chakraborty		of Detective	nal		
		Fiction	Adminis		
			tration:		
			Theory		
			and		
			Practice		
Dr. Rituparna	English	Race and Sherlock	Educatio	2024	SCOPUS
Chakraborty		Holmes:	nal		
		Interrogating the	Adminis		
		Politics of	tration:		
		Ethnicity in Select	Theory		
		Fiction of Arthur	and		
		Conan Doyle	Practice		

Dr. Rituparna Chakraborty	English	Detective Fiction: Birth and Rise	Educatio nal Adminis tration: Theory and Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Arthur Conan Doyle: A Multifarious Personality	Educational Administration: Theory and Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Detective Fiction in Different Cultures	Educatio nal Adminis tration: Theory and Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Empire and Nation: Interrogating the Politics of Colonialism and Nationalism	Educational Administration: Theory and Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Interrogating the Politics of Anonymity among the Writers of Detective Fiction: A Study	Educational Administration: Theory and Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Rabindranath Tagore: A Profile of his Eventful Life	Educational Administration: Theoryand Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Practical Philosophy mingles with Worldly Wisdom  Value based Moralizing in Bacon's Essays "Of Studies" and "Of Great Place": A Study from Stylistic Viewpoint	Educatio nal Adminis tration: Theory and Practice	2024	SCOPUS

Dr. Rituparna Chakraborty	English	Postcolonial Elements in Mamang Dai's Escaping the Land: An Exploration	Educatio nal Adminis tration: Theory and Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Teachers' Perception on English Language Teaching: An Assessment in Paschim Medinipur District of West Bengal	Educational Administration: Theory and Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	Gender Roles and Representations in Thakumar Jhuli: The Role of Witches and Colorism	Educational Administration: Theoryand Practice	2024	SCOPUS
Dr. Rituparna Chakraborty	English	A Linguistic Analysis of Copulas in Bangla with respect to	Library Progress Internati onal	2024	SCOPUS
Dr. Rituparna Chakraborty	English	The Conclusion and Celluloid: Rereading Samapti through the Eyes of Tagore and Ray	Theatre Internati onal	2024	UGC CARE
Dr. Rituparna Chakraborty	English	The war of seven kingdoms: A Feminist Rereading of the famous series Game of Thrones	Internati onl Journal of Culture Studies and Social Sciences	2024	UGC CARE
Dr. Rituparna Chakraborty	English	The Broken Nest: A Comparative Study of Tagore's short story 'Nashtoneer' and Satyajit Ray's Film Charulata	Theatre Internati onal	2024	UGC CARE
Dr. Rituparna Chakraborty	English	Fish Liver Oil: Omega 3 Fatty Acids and Human Health	Uttarpra desh Journal of Zoology	2022	Peer reviewed

Dr. Rituparna Chakraborty	English	Delineation of Tagore's Women in Fiction and Films	Internati onal Journal of Researc h in English	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Depiction of Widowhood in Select Fictions of Rabindranath Tagore: A Feminist Study	Social Studies Journal	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Disnarration and a few unanswered questions: A Critique on Tagore's Portrayal of Women in his	Social Studies Journal	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Fiction  Disnarration and gender in select fiction of Rabindranath Tagore	Internati onal Journal of Advance d Academ ic Studies	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Frankenstein: Mary Shelley's lost paradise	International Journal of Literacy and Educatio n	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Sita the Shuru: Interrogating the politics of the portrayal of Sita in a feminist rereading of Ramayan by Nabaneeta DevSen	Internati onal Journal of Advance d Academ ic Studies	2024	Peer Reviewed

Dr. Rituparna Chakraborty	English	Interrogating misogyny, claims to selfhood and empowerment in Mrinal Pande's story, "Girls"	International Journal of Literacy and Educatio n	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	The Minor Women Characters in Tagore's Novel Gora: A Study	International Journal of Humanit ies Educatio n and Researc h	2024	Peer Reviewed
Dr. Rituparna	English	Crime Fiction: An	Internati	2024	Peer
Chakraborty		Introduction	omal Journal of Humanit ies and Arts		Reviewed
Dr. Rituparna Chakraborty	English	Woman Question: Tagore's Attitude towards Women	Internati onal Journal of Researc h in English	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	A Feminist Rereading of Lady Macbeth's Character in Shakespeare's Play Macbeth	International Journal of Advance d Academ ic Studies	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Female Protagonists in Tagore's Novels The Wreck, The Home and the World, Chokher Bali and Char Adhyay	Internati onal Journal of Multidis ciplinary Trends	2024	Peer Reviewed

Dr. Rituparna Chakraborty	English	Emergence of Bhadramahila: Re- Reading the principle Women Characters in Tagore's novel Gora	International Journal of Sociolog y and Humanit ies	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	The lost jewels: Loss of womanhood in a genteel patriarchy	International Journal of Humanit ies and Arts	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Resisting patriarchy, both nationalist and colonial: A	Internati onal Journal of	2024	Peer Reviewed
		rereading of Rabindranath Tagore's story, Shasti	Advance d Mass Commu nication and Journali sm		
Dr. Rituparna Chakraborty	English	The fall of the angel, the rise of the monster: A feminist reading of Roald Dahl's short story "Lamb to the Slaughter"	Internati onal Journal of Multidis ciplinary Trends	2024	Peer Reviewed
Mr. MasadulIslam, Dr. Rituparna Chakraborty & Dr.Priyanka Dey	English	Stylistics, English Language Teaching and Newspaper as TLM	Educational Administration: Theory and Practice	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	New-Historicism and Sherlock Holmes	International Journal of Sociolog y and Humanit ies	2024	Peer Reviewed

Dr. Rituparna Chakraborty	English	Anguished: She flaps her wings haplessly in the prison	International Journal of Social Science and Education Researc h	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Interrogating marital constrains and servitude: Rereading Kate Chopin's short story titled "The Story of an Hour"	International Journal of Humanit ies and Educatio n Researc h	2024	Peer Reviewed
Dr. Rituparna Chakraborty, Arunita Baul Guha & Riya Dutta	English	"Can the Subaltern Speak?": A Comparative Study on Rabindranath Tagore's Dance Drama Chandalika and Nagraj Manjule's Movie Fandry	International Journal of Cultural Studies and Social Sciences	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Interrogating the repressive voice of patriarchy: Analysis of Ama Ata Aidoo's story, "The Girl Who Can"	Internati onal Journal of Political Science and Governa nce	2024	Peer Reviewed

Dr. Rituparna Chakraborty	English	Interrogating space and identity: Rereading Anuradha Marwah's story Womanspace in Tis Hazari	International Journal of Advance d Mass Commu nication and Journali sm	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Rereading "The Postmaster": Resisting gender, caste and class dichotomy: In Rabindranath Tagore's short story "The Postmaster"	International Journal of Arts, Humanit ies and Social Studies	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Treatment of Race, Caste, Religion and Gender in Rudyard Kipling's Kim: A Literary Scan through the Postcolonial Lens	International Journal of Applied Researc h	2024	Peer Reviewed
Dr. Rituparna Chakraborty	English	Race, gender and religion: A postcolonial reading of Kipling's the light that failed and Kim	Internati onal Journal of Researc h in English	2023	Peer reviewed
Dr. Rituparna Chakraborty	English	Crime and punishment: Rereading Agatha Christie's novel murder on the orient express	Internati onal Journal of Advance d Academ ic Studies	2022	Peer reviewed
Dr. Madhumita Roy	English	Rabindranath and Technology: A Re-reading of Raktakarabi	Theatre Internati onal	2024	UGC CARE

Dr. Shreyoshi Dhar	English	Depiction of Women in Tollywood: A Story of the Patriarchal Hegemony Well Maintained	Theatre Internati onal	2024	UGC CARE
Dr. Shreyoshi Dhar	English	Idealising Beauty Standards: A Study of Mythological Characters in the World of Media Authors	International Journal of Cultural Studies and Social Sciences	2024	UGC CARE
Dr. Shreyoshi Dhar	English	Parental Figures in Classical Literature	Rabindr a Bharati Patrika 1431 (Janmot sav)	2024	UGC CARE
Dr. Shreyoshi Dhar	English	Exploring Childhood through Verse and Narrative: Rabindranath	Internati onal Journal of Cultural	2025	UGC CARE
		Tagore's Depiction of Children in his Literary Works	Studies and Social Sciences		
Dr. Shreyoshi Dhar	English	Reinstating Harmony Through Religion: An Evitable Endeavour of Tagore in Select Works	Educational Administration Theory and Practice	2024	Scopus
Dr. Shreyoshi Dhar	English	Oedipus Complex in Tagore's 'Birpurus' or 'The Hero': A Psychoanalytic Reading	Educatio nal Adminis tration Theory and Practice	2024	Scopus

Dr. Shreyoshi Dhar	English	Transcending the boundaries of male gaze by embracing variability through female gaze: A critical study of the theoretical perspectives	International Journal of Researc h in English	2024	Peer reviewed
Dr. Shreyoshi Dhar	English	Exploring the theory of gender schema in literary works: A critical study	Internati onal Journal of Researc h in English	2024	Peer reviewed
Dr. Shreyoshi Dhar	English	Masculinity and its depiction in 21st-century literature: A critical study	Internati onal Journal of Researc h in English	2024	Peer reviewed
Dr. Shubham Bhattacharjee	English	Female Sleuths of the 21st Century Bengali Screen: Depiction of Women Detectives in Shubho Mahurat and Mitin Mashi	Theatre Internati onal	2024	UGC CARE
Dr. Shubham Bhattacharjee	English	De-Familiarizing the Familiar: The Strategies behind the Dystopian Narratives in the OTT Platform in India	Internati onal Journal of Cultural Studies and Social Sciences	2024	UGC CARE

Dr. Shubham Bhattacharjee	English	Transition from Thakur to Tagore, Poet to Prophet: Making the World 'Visva-Bharati'	International Journal of Cultural Studies and Social Sciences , 20 (23)	2024	UGC CARE
Dr. Shubham Bhattacharjee	English	Reinstating Harmony Through Religion: An Evitable Endeavour of Tagore in Select Works	Educational Administration Theory and Practice	2024	Scopus
Dr. Shubham Bhattacharjee	English	Oedipus Complex in Tagore's 'Birpurus' or 'The Hero': A Psychoanalytic Reading	Educatio nal Adminis tration Theory and Practice	2024	Scopus
Dr. Shubham Bhattacharjee	English	Making and remaking the female self: A study in the notion of reconstructing woman in classical Indian narratives		2024	Peer reviewed
Dr. Shubham Bhattacharjee	English	Posthuman feminism: Reconfiguring gender, identity, and agency in a technological era		2024	Peer reviewed
Dr. Shubham Bhattacharjee	English	Rethinking Satyajit Ray's Charulata, the lonely wife through the perspectives of female identity, marginality and subversion		2024	Peer reviewed
Dr. Shubham Bhattacharjee	English	Negotiating colonial arena: Toru Dutt's exploration of identity and resistance		2024	Peer reviewed

Debarshi Arathdar	English	Literature, Narrativity and Composition in the age of Artificial Intelligence	TRANS - Review of General and Compar ative Literatur e, Presses Sorbonn e Nouvell e	2021	Peer reviewed
Debarshi Arathdar	English	Literatura, narratividad y composición en la era de la Inteligencia Artificial	Literatur a: teoría, historia, crítica	2024	Scopus, WoS
Debarshi Arathdar	English	Conditioned Agency and Fluid Character Roles in Harold Pinter's The Birthday Party	International Journal of Cultural Studies and Social Sciences	2024	UGC CARE
Debarshi Arathdar	English	The Aesthetics of Hyper-realism in Netflix's Love, Death and Robots: Jibaro	Theatre Internati onal	2024	UGC CARE
Debarshi Arathdar	English	Humanitarian  Disseminations and Hierarchy Dissipations in Rabindranath Tagore's Chandalika	Theatre Internati onal	2024	UGC CARE
Debarshi Arathdar	English	Mentalising and the metaphysics of (un-)loving in Tagore's "Shesher Kobita"	International Journal of Cultural Studies and Social Sciences	2025	UGC CARE

Dr. Tirna Sadhu	English		Journal	2024	UGC
			of		CARE
		Analyzing Third	Teachin		
		World	g and		
		Urbanization	Researc		
		through Selected	h in		
		Texts from	English		
		Contemporary	Literatur		
		Indian Literature	e		
Dr. Tirna Sadhu	English	"Into that heaven			UGC
		of freedom, My			CARE
		father, let my	INTER		
		country awake":	NATIO		
		Reviewing	NAL		
		Naukadubi [The	JOURN		
		Wreck] as a	AL OF		
		witness to	CULTU		
		Tagore's idea of	RAL		
		united India	STUDIE		
		amidst a	S AND		
		bewildering	SOCIA		
		_	L		
		diversity of races,	SCIENC		
		cultures, and	ES	2025	
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Dr. Tirna Sadhu	English	Reconstructing the			UGC
		social imaginary:	T 4 4.		CARE
		A critique of non-	Internati		
		normative	onal		
		identities in	Journal		
		Rituparno	of		
		Ghosh's	Cultural		
		Chitrangada: The	Studies		
		Crowning Wish	and		
		and Sanjay Nag's	Social		
		Memories in	Sciences	2024	
		March			
Dr. Tirna Sadhu	English	Symbolic realism			UGC
	1	in Rabindranath			CARE
		Tagore's The			
		King of the Dark	Theatre		
		Chamber: A	Internati		
		Critical Study	onal	2024	
Dr. Tirna Sadhu	English	"The Body Is Not			UGC
		a Thing; It Is a			CARE
		Situation":			
		Reviewing the			
		Trauma in Life of			
		a Transgender	Theatre		
		through Selected	Internati		
		Films.	onal	2024	
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Dr. Tirna Sadhu	English	"I don't want to be			UGC
		looked at in this			CARE
		merciless glare!":			
		Examining the	Internati		
		idea of the male	onal		
		gaze in theatre	Journal		
		and how female	of		
		agency is asserted	Humanit		
		or undermined	ies and		
		through Tennessee	Educatio		
		Williams' A	n		
		Streetcar Named	Researc		
		Desire	h	2024	
Dr. Tirna Sadhu	English	"When you rape,			UGC
		beat, maim,			CARE
		mutilate, burn,			CINE
		bury, and			
		terrorize women,			
		•			
		you destroy the essential life			
		· ·			
		energy on the			
		planet":			
		Discussing	T		
		through Eve	Internati		
		Ensler's The	onal		
		Vagina	Journal		
		Monologues how	of		
		feminist theatre	Humanit		
		has reclaimed	ies and		
		female voices and	Educatio		
		narratives in a	n		
		historically male-	Researc		
		dominated society	h	2024	
Dr. Tirna Sadhu	English	The world is	Internati		Peer
		divided between	onal	2024	reviewed
		those who stay	Journal		
		and those who	of		
		leave": A	Researc		
		portrayal of the	h in		
		woman warriors	English		
		in the selected			
		texts of Bharati			
		Mukherjee			
Dr. Tirna Sadhu	English	"I want to fit in,			
DI. TIIIIa Saullu	Lugusu	but I don't want to	Internati		
		be a clone":	onal		
			Journal		
		Exploring the			
		fragility of	of Arts, Humanit		
		masculinity			
		through Bret	ies and		LICC
		Easton Ellis'	Social	2024	UGC
		American Psycho	Studies	2024	CARE

Dr. Tirna Sadhu	English	"Sometimes everyone pretended to be normal until one day the truth was undeniable": Reviewing the agony of a transgender at being misgendered through selected Young Adult fiction	International Journal of Research in English	2024	Peer reviewed
Dr. Tirna Sadhu	English	Analyzing Third World Urbanization through Selected Texts from Contemporary Indian Literature	Journal of Teachin g and Researc h in English Literatur e	2024	UGC CARE
Natasha Chatterjee	English	Tagore's play "Chitra": A Delineation of the Female Protagonist 'Chitrangada' as A modern Woman	Theatre Internati onal	2024	UGC CARE
Natasha Chatterjee	English	Exploring Tagore as the Pioneer of Bengali Literature and Cultural Renaissance.	nternatio nal Journal of Cultural	2025	UGC CARE
			Studies and Social Sciences		
Agnideepto Datta	English	Structuring Human Experience and Identity: Analyzing Rabindranath Tagore's Two Sisters through Paul Ricoeur's Threefold Mimesis	International Journal of Cultural Studies and Social Sciences	2025	UGC CARE

Agnideepto Datta	English	Reconfiguring Temporal Realities: Husserlian Phenomenology and the Dynamics of Oppression in Rabindranath Tagore's Red Orleanders	Theatre Internati onal	2024	UGC CARE
Agnideepto Datta	English	Unveiling Disability and Body Politics: A Foucauldian Exploration through Media Lens	International Journal of Cultural Studies and Social Sciences	2024	UGC CARE
Agnideepto Datta	English	Harmony in Flux: Portrayal of Natural Elements in Select Films through Pre- Socratic Lens	Theatre Internati onal	2024	UGC CARE
Agnideepto Datta & Dr. Moupikta Mukherjee	English	Return to Dilemma: Addressing the Notions of Disabled Masculinity in Thomas Hardy's The Return of the Native	Consorti um: An Internati onal Journal of Literary and Cultural	2023	Peer reviewed
D. C.		"I am a shape now suddenly long and scaly": Abject Physical Transformations and Dimensions of Monstrosity in	Manusy a: Journal of		
Dr. Soumyarup Bhattacharjee	English	Beth Yahp's The Crocodile Fury.	Humanit ies	2024	SCOPUS
Dr. Soumyarup Bhattacharjee	English	Deciphering the Anxiety of Tagore's Legacy and the Question of Relevance in Q's Tasher Desh.	Theatre Internati onal	2024	UGC- CARE

			Internati		
			onal		
			Journal		
		Tagana'a	of		
		Tagore's			
		Observations on	Cultural		
		Pluralism and	Studies		
Da Carrerra		Unity in "The	and		UGC-
Dr. Soumyarup	F 1: 1	Religion of the	Social	2025	
Bhattacharjee	English	Forest"	Sciences	2025	CARE
			Praxis		
			Internati		
			onal		
			Journal		
		Boon and Curse as	of Social		
		Folkloric	Science		
		Leitmotifs in	and		_
-		Indian Literature	Literatur		Peer
Sudipta Dutta	English	and Cinema	e	2024	reviewed
			Praxis		
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		the Nation and a			
		Father-figure: A	Theatre		
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Sudipta Dutta	English	Achalayatan	onal	2024	CARE
Sudipta Dutta	English	Heroines of Sports	Internati	2024	Peer
				2024	
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1		Fiction: Fighting Marginalization		2024	
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		Fiction: Fighting Marginalization and Finding	onal Journal of Arts, Humanit ies and	2024	
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			onal		
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		Docile Body and			
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Sudipta Dutta	English	solution"	English	2024	reviewed

## **Publications in Edited Volumes:**

Author/s	Туре	Name of the Volume/Book	Name of the Article	Year	ISBN
Dr. Rituparna Chakraborty	Book	Reifying Transnationalism: Tagore and the West	N.A.	2025	978-93-61319- 08-2
Dr. Rituparna Chakraborty	Book Chapter	Nationalism and Indigenousness in Select Commonwealth Writings and Films	The Relevance of Commonwealth Writings Today- With Special Reference to their Indigenousness and Nationalism	2025	9783838219158
Dr. Rituparna Chakraborty	Book Chapter	Linking Latitudes Postcolonialism and After	Caliban or Cannibal? Rereading The Tempest through the Postcolonial Lens	2024	978-93-61315- 51-0
Dr. Rituparna Chakraborty	Book Chapter	The Enchanted Glass: Towards New Trajectories of Tagore	" The Lost Jewels": A gothic Tale by Tagore	2024	978-81-976398
Dr. Rituparna Chakraborty	Book Chapter	Media, Culture and Audience: Contemporary Issues and Challenges	A Comparative Study on Tagore's Novel Home and the World and Ray's Film Ghare-Baire	2024	978-93-5529- 948-2
Dr. Rituparna Chakraborty	Book Chapter	Sociological Perspectives on Media, Gender and Cultural Studies	A Feminist Reading of the "Yellow Wallpaper" by Charlotte Perkins Gilman	2024	978-93-91741- 73-0
Dr. Rituparna Chakraborty	Book Chapter	Media, Gender, and Society: Emerging Trends and Interpretations	Re-reading Othello through a Postcolonial Perspective: Marginalization of the Cultural Other	2024	978-81- 967932-4-1
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		English and on Media Culture			
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Dr. Rituparna Chakraborty	Book Chapter	Antinomies, Engagement and Beyond: Studies in Tagore	Nation and Woman: Dismantling the Binary of the Home and the World	2024	978-93-91449- 81-0
Dr. Rituparna Chakraborty	Book Chapter	Autocritical Postcolonialism: Disciplining the Temporalities	Tughlaq, a Dreamer and an Idealist torn apart by the Pragmatic Needs and Demands of Politics: A Postcolonial Perspective	2024	978-81-970208- 1-0
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#### Courses Offered:

B.A. (H) in Journalism and Mass Communication M.A in Journalism and Mass Communication PhD. in Journalism and Mass Communication

#### Faculty Details:

Name of the Teacher	Specialization
Ms. Kankana Ghosh	Corporate /organisational Communication.
Ms. Dipika Mondal	New media and Global communication.
Ms. Ipsita Banerjee	Advertising, Media Management
Dr. Mahendra Jena	Public Relations, Political Communication
Mr. Sandipan Dey	Traditional media, Advertising
Mr. Ayan Roy	Audio- Visual Production, Broadcast
Ms. Riya Sikdar	Development Communication
Dr.Pramiti Roy	Public Relations, Political Communication, Corporate /organisational Communication.
Dr. Moumita Chakraborty	Traditional media, Advertising, Development communication, New media and Global communication.
Mr. Kishor Kumar Hira	New Media, AR & VR Concept, Artificial Intelligence, Digital Marketing.
Mr. Sujoy Goswami	Audio- Visual Production, Broadcast
Ms. Pritha Misra	Health Communication, Development Communication
Mr. Arijit Das	Live Television Broadcast, Non-Fiction Entertainment, Sports Broadcasting
Dr. Rohit Ganguly	Advertising, Media Management
Ms.Monisha Shaw	Health Communication
Ms. Olivia Ghosh	Non-Fiction Entertainment, Sports Broadcasting
Ms. Sukanya Das	Advertising, Media Management
Dr. Souvik Acharya	Artificial Intelligence, Digital Marketing.

#### External Members on the Board of Studies:

Sl. No.	Name of the External Members	Details
1.	Dr. Buroshiva Dasgupta	Professor, School of Media and Communication, Sister Nivedita University, Kolkata
2.	Dr. Manas Roy	Professor and Former head, Centre for Journalism and Mass Communication, Visva-Bharati University
3.	Dr. Rajesh Das	Associate Professor and Head, Department of Mass Communication, The University of Burdwan

Publication Details (Conference/ Patent/ Research Papers)
Write in different section for Conference Proceedings, Patent and Research Papers

Internet- A Competitive Displacement for Traditional Media on the News Domain, Paper By Dr. Pramiti Roy, ISBN No. 978-87-967932-4-1, 10:81-967932-4-3, Year of Publication 2024

The Indian Youth And The Changing Paradigm: From Television To The Internet, Paper By Dr. Pramiti Roy, ISBN No.978-93-6128-689-6. Year of Publication 2024

Media Convergence and Advertising Evolution, Paper By Dr. Pramiti Roy, <a href="https://doi.org/10.62778/int.book.475">https://doi.org/10.62778/int.book.475</a>, ISBN No. 978-93-5834-395-3, Year of Publication 2024

Exploring How Podcasting Combines Elements of Radio, Storytelling, and Digital Media, and Its Impact on the Broader Media Landscape, Paper By Dr. Pramiti Roy, <a href="https://doi.org/10.62906/bs.book.207">https://doi.org/10.62906/bs.book.207</a>, ISBN No. 978-93-6135-317-8, Year of Publication 2024

Exploring VR and AR Applications in Journalism and News Reporting: Creating Immersive Storytelling Experiences, Paper By Dr. Pramiti Roy, <a href="https://doi.org/10.62906/bs.book.207">https://doi.org/10.62906/bs.book.207</a>, ISBN No.978-93-6233-386-5, Year of Publication 2024

An Investigation into How Global Convergence of Media Is Influencing Cultural Exchange, Diversity, and Homogenization of Media Content in Different Regions, Paper By Dr. Pramiti Roy, <a href="https://doi.org/10.22271/ed.book.2976">https://doi.org/10.22271/ed.book.2976</a>, ISBN No.978-93-6135-243-0, Year of Publication 2024

Strategic Corporate Crisis Management - Case studies on Coca Cola, KFC chicken & United Airlines controversy, Paper By Dr. Pramiti Roy, Year of Publication 2024

Extended Analytics in Research Methodology across Various Verticals: A Review, Paper By Dr. Pramiti Roy, ISBN No. 9788197653544 (Print) | 9788197653568 (eBook), Year of Publication 2024

A Generic Platform-Independent Research Methodology Framework Converging to Product Commercialization, Paper By Dr. Pramiti Roy, ISBN No. 9788197653544 (Print) | 9788197653568 (eBook), Year of Publication 2024

Pod-casting Evolves as a New Form of Mass Communication in this Digital Era Published in 2024, "Emerging Technology in Media and Communication Studies", ISBN: 978-93-6128-689-6, DOI: 10.62778/int.book.475

The Evolution of Media Ecosystem, Published in 2024, Book Name "Empowering Media Users and Interactive Media Design", ISBN: 978-93-5834-395-3, DOI: 10.62906/bs.book.208

Smart Media: How AI is Reshaping Media, Published in 2024, "5G Media Convergence and Cybersecurity", ISBN: 978-93-6233-353-7, DOI: 10.22271/ed.book.2977

User Engagement in Interactive Media: Trends, Innovations, and Personalization Published in 2024, Book Name "Media Convergence and Design Skills" ISBN: 978-93-6135-317-8, DOI: 10.62906/bs.book.207

From Script to Screen: AI is Shaping the Future of Film Making , Published in 2024, "Virtual Reality and Artificial Intelligence Technologies" ISBN: 978-93-6233-386-5, DOI: https://doi.org/10.62906/bs.book.207

The Role of Graphics in Revolutionizing AR and VR Technologies, Year of Publication 2024 https://doi.org/10.62906/bs.book.207, Paper By Kishor Kumar Hira, ISBN No. 978-93-6233-386-5,

Visual evolution: The Transformative role of Graphic Design in Media studies, Year of Publication 2024, Paper By Kishor Kumar Hira, ISBN No. 978-93-6128-689-6

The Intersection of Emerging Technologies and Design Skills in the Era of Media Convergence, Paper By Kishor Kumar Hira, ISBN No.978-93-6135-317-8, https://doi.org/10.22271/ed.book.2977, Year of Publication 2024

Creative Design Approaches to Addressing Cybersecurity Challenges in 5G Media Convergence, Paper By Kishor Kumar Hira, https://doi.org/10.62906/bs.book.208, ISBN No. 978-93-6233-353-7, Year of Publication 2024

The Intersection of AI, Machine Learning and Design in Media Convergence, Paper By Kishor Kumar Hira, https://doi.org/10.22271/ed.book.2976, ISBN No. 978-93-6135-243-0, Year of Publication 2024

Interactive Media Design: Empowering Users through Personalization, Paper By Kishor Kumar Hira, <a href="https://doi.org/10.62778/int.book.475">https://doi.org/10.62778/int.book.475</a>, ISBN No.978-93-5834-395-3, Year of Publication 2024

Portrayal of transgender in Indian cinema, with special reference to Taali, An Indian web series- A critical review, Paper By Dr.Moumita Chakraborty, ISBN No. 978-81-967932-4-1, 10:81-967932-4-3., Year of Publication 2024

Journalism in the Era of Artificial Intelligence, Emerging Trends in Media and Communication Studies, Paper By Dr.Moumita Chakraborty, ISBN No. 978-93-6128-689-6, Year of Publication 2024

Decoding news in the digital age among social media: the role of media literacy in mitigating misinformation, Paper By Dr. Moumita Chakraborty, <a href="https://doi.org/10.62778/int.book.475">https://doi.org/10.62778/int.book.475</a>, ISBN No. 978-93-5834-395-3, Year of Publication 2024

The Convergence of Cyber Security, AI, and Advanced Tech: Strategies for a Secured Future, Paper By Dr. Moumita Chakraborty, <a href="https://doi.org/10.22271/ed.book.2976">https://doi.org/10.22271/ed.book.2976</a>, ISBN NO. 978-93-6135-243-0, Year of Publication 2024

The Future Classroom: Evaluating the Effectiveness of AR and VR in Educational Settings, Paper by Dr. Moumita Chakraborty, https://doi.org/10.22271/ed.book.2977, ISBN No. 978-93-6135-317-8, Year of Publication 2024

The Role of New Media in Enhancing Development Communication Through Media Convergence, Paper By Dr. Moumita Chakraborty, <a href="https://doi.org/10.62906/bs.book.208">https://doi.org/10.62906/bs.book.208</a>, ISBN No.978-93-6233-353-7 , Year of Publication 2024

The Impact of Social Media on Children: Behavioural and Psychological Effects, Paper By Dr. Moumita Chakraborty, https://doi.org/10.62906/bs.book.207, ISBN No.978-93-6233-386-5, Year of Publication 2024

Bridging the Gap: Integrating Climate Mitigation and Adaptation Strategies for Sustainable Future" paper by Sujoy Goswami in September, 2024 in the Conference on International Conference on Transforming the Future of Environmental Sustainability with ISBN 978-93-91741-63-1.

"Immersive Experiences in Environmental Learning: How Interactive Media Can Drive Sustainability Awareness" paper by Sujoy Goswami in September, 2024 in the Conference on International Conference on Transforming the Future of Environmental Sustainability with ISBN 978-81-981564-2-6.

"Integrating Renewable Energy Solutions for Climate Mitigation: Challenges and Opportunities" paper by Sujoy Goswami in September, 2024 in the Conference on International Conference on Transforming the Future of Environmental Sustainability with ISBN 978-81-985818-6-0.

"Paving the Way for a Sustainable Tomorrow: Strategies for Environmental Transformation" paper by Sujoy Goswami in September, 2024 in the Conference on International Conference on Transforming the Future of Environmental Sustainability with ISBN 978-93-81231-51-7.

"Policy Frameworks for a Green Economy: Assessing Global Strategies for Sustainable Development" paper by Sujoy Goswami in September, 2024 in the Conference on International Conference on Transforming the Future of Environmental Sustainability with ISBN 978-81-976398-3-8.

Instagram as a platform for social sustainability: Promoting Gender Equality through Digital Activities - Paper by Arijit Das, MARCH 2025

A Multidisciplinary Approach towards Sustainability and Development by Unlocking New Opportunities in the World of Constant Disruption, ISBN No: – "978-81-981202-4-3" Paper by Arijit Das, Year of Publication: 2024

Entrepreneurial Ecosystem, Paper By Dr. Pramiti Roy, Swami Vivekananda University, ISBN No. 978-93-341-6690-3, Year of Publication: 2024

Post- COVID era and the zero generation: vulnerability, resilience and adaptive capacity in aging communities of selected urban spaces of North East India, Paper By Dr. Pramiti Roy, Dr. Rituparna Chakraborty, ICSSR, Starting Month & Year - 20/09/2024- Ending month & Year- 20/09/2025.

#### Conferences, Workshops, Seminars Organized

International Conference on Media Convergence and Emerging Technologies at Swami Vivekananda University, held on June 4th and 5th, 2024

The International Conference on Transforming the Future of Environmental Sustainability and Communication: A Paradigm shift. 24th and 25th September 2024

International Conference on "Inclusive Storytelling: Media's Role in Social Justice and Representation" ICIS January 2025

Certificate Course in Brand Management 1st July - 30th August 2024

Master class on Journalism 'from time-tested rudiments to social media-fuelled digital era', on 30th September 2024.

Workshop on Television Production: Insights from Industry Expert Mr. Arijit Das, 14th January 2025

Importance of Critical Thinking and Creativity among 21st Century Youth" and "Media Regulations in India – What's the Way Forward?" An Enlightening Session with Ravi Kiran Edara, IRS officer, 9th January 2025.

#### Department of Psychology

#### Brief Details about the Department

The Psychology department at the university is dedicated to offering comprehensive education and research opportunities in the field of psychology. The department offers postgraduate and doctoral programs in psychology, allowing students to specialize in various areas of the discipline. The department's faculty members are highly qualified and experienced, contributing to the quality of education and research. Research in the department covers a wide range of topics, from clinical psychology to cognitive psychology, and contributes to the advancement of knowledge in the field. The Psychology department fosters a collaborative and engaging learning environment, encouraging students to participate in research projects and internships. Students in the Psychology department also have access to state-of-the-art facilities and resources for their studies and research. Students have opportunities to engage in practical experiences through internships and fieldwork to apply their knowledge in real-world settings. The department often hosts seminars, conferences, and workshops, bringing in experts and scholars to enhance students' understanding of psychology. The students from the Psychology department at Swami Vivekananda University are well-prepared for careers in various fields, including counselling, research, education, and clinical practice.

#### Courses Offered:

M.A./M.Sc. in Applied Psychology

Ph.D. in Psychology

#### Faculty Details

Name of the Teacher	Specialization	
Dr. Nilanjana Mitra	Positive Psychology, Rehabilitation Psychology, Marginalized community & wellbeing	
Dr. Papia Mukherjee	Positive Psychology, Social Psychology, Developmental Psychology, Stress Management	
Ms. Lina Sarkar	SOCIAL PSYCHOLOGY, DEVELOPMENTAL PSYCHOLOGY, CLINICAL PSYCHOLOGY	
Ms. Rudrani Mitra	Clinical Psychology, Abnormal Psychology, Counselling Psychology, Cognitive Psychology, Personality Psychology.	
Ms. Madhurima Hazra	Marginalized community & wellbeing	
Ms. Inshirah Ahmed	Developmental Psychology, Stress Management	
Ms. Joyeeta Adhikary	CLINICAL PSYCHOLOGY	
Ms. Saranya Banerjee	Personality Psychology.	
Ms. Ishita Banerjee	Rehabilitation Psychology	
Ms. Sharmishtha Chanda	Social Psychology	
Ms. Mousumi Mayra	Abnormal Psychology	

### External Members on the Board of Studies:

Prof. (Dr.) Manisha Dasgupta	Professor, Department of Psychology,	
	University of Calcutta	
Dr. Ishita Chatterjee	Associate Professor, Department of	
	Applied Psychology, University of Calcutta	
Dr. Atanu Kumar Dogra	Assistant Professor, Department of	
	Psychology, University of Calcutta	

# Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers

- Mukherjee, S. & **Mitra**, **N.** (2025). A comprehensive review of sexual prejudice: Societal attitudes towards homosexuality and bisexuality. *International Journal of Clinical Biology and Biochemistry*. 7(1):25-28. DOI: https://doi.org/10.33545/26646188.2025.v7.i1a.79
- **Mitra**, N. & Mitra Bhaumik, P (2025). The value of forgiveness in human life. *International Journal of Biology Sciences*. 7(2):22-27. DOI: 10.33545/26649926.2025.v7.i2a.294
- Roy, M. & **Mitra**, **N.** (2025). Impact of body image, social support, and psychological well-being on gender identity. *International Journal of Research in Psychiatry*. 5(1):01-04. DOI: 10.22271/27891623.2025.v5.i1a.55
- Mukherjee, S., Bhowmick, A. & **Mitra, N.** (2025). A comparative study of parental attitude towards their children with intellectual disability based on educational qualification, financial background and region. *International Journal of Multidisciplinary Trends*. 7(1):23-26. DOI: 10.22271/multi.2025.v7.i1a.565
- Biswas, M. & **Mitra**, **N.** (2025). Prosocial and altruistic behaviours as predictors of adolescent relationship satisfaction and self-esteem: A comprehensive review. International Journal of Psychiatry Research. 7(1):01-04. DOI: 10.33545/26649241.2025.v7.i1a.17
- Mukherjee, S. & **Mitra**, **N.** (2025). Homophobic attitudes in sports: Fan behaviour in stadiums and online spaces: A comprehensive review. International Journal of Psychiatry Research. 7(1):01-04. DOI: 10.33545/26648962.2025.v7.i1a.78
- Majumder, T., **Mitra**, N & Ghosh, S. (2024). Ergonomics in Management of Stress Amongst the Night Shift Workers: A Preliminary Review. International Journal for Multidisciplinary Research. 6 (6): 1-8, https://doi.org/10.36948/ijfmr.2024.v06i06.30360.

- Saha, M., Arora, R., & Mitra, N. (2024) Impact of Parenting Style on Resilience and Mental Health of Adolescents. The International Journal of Indian Psychology. 12(4): 312-318, DOI: 10.25215/1204.031.
- Pal, P. & Mitra, N. (2024). Emergence of online dating apps & its psychological impact. *Int. J. Psychol. Sci.*; 6(1):08-12. DOI: 10.33545/26648377.2024.v6.i1a.35
- Jha, K., Shaw, T., Sarkar, S. & **Mitra, N.** (2024). Effect of student's attachment styles on rejection sensitivity and self-esteem. *Int. J. Psychol. Sci.*, 6(1):04-07. DOI: 10.33545/26648377.2024.v6.i1a.34
- Saha, M. & **Mitra**, **N.** (2024). A comparative study of personality traits and anger amongst street children & normal developing children. *Int. J. Psychol. Sci*, 6(1):13-16. DOI: 10.33545/26648377.2024.v6.i1a.36
- Sahay, S & Mitra, N. (2024). Non-suicidal self-injury among youths: A probe into the 'what's' and 'whys' of self-harm. *Int. J. Psychol. Res*, 6(1):14-16. DOI: 10.33545/26648903.2024.v6.i1a.44
- Datta, S., Guria, P., Mondal K., & Mitra, N. (2024). Psycho-social effects of social media & peer-pressure on body image. *Int. J. Psychol. Res*, 6 (1):17-21. DOI: 10.33545/26648903.2024.v6.i1a.45
- Ghowrui, A., Roy, D., Bhattacharyya M., & **Mitra, N.** (2024). Effects of cyberbullying on women's mental health. *Int. J. Psychol. Res*, 6(1):25-29. DOI: 10.33545/26648903.2024.v6.i1a.47
- Bhattacharya, S., Mitra, S., Sharma, S., & Mitra, N. (2024). Evaluation of smart phone addiction & its related factors among college students. *Int. J. Psychol. Res*, 6(1):30-33. DOI: 10.33545/26648903.2024.v6.i1a.48
- Roy, S., Niang, K., Mandal, A., & **Mitra, N.**, (2025). Beyond IQ: Integrating Multiple Intelligence Theory in Indian Academic Education and Inclusivity of all Intelligences. In M. Banerjee & R. Das (Eds.). *Multidisciplinary Studies in Education*, (pp. 96 112). The Book World: Kolkata. (ISBN no: 978-93-81231-55-5).
- Bagchi, T., & Mitra, N., (2025). Impact of Workplace Inclusion on The Psychological Well-Being of Employees with Disabilities. In N. Mitra (Ed.). *Contemporary Perspectives in Psychology*, (pp. 62 84). Penprints Publications: Kolkata. (ISBN no: 978-81-988004-5-9).
- Das, S., & Mitra, N., (2025). The Future Evolution of Psychology in the Era of (AI) Artificial Intelligence. In N. Mitra (Ed.). *Contemporary Perspectives in Psychology*, (pp. 129 153). Penprints Publications: Kolkata. (ISBN no: 978-81-988004-5-9).

- Roy, K., Datta, S., & **Mitra, N.**, (2024). Effects of Parenting Style on Identity Formation and Self Esteem in Adults. In L. Mallick (Ed.). *Multidisciplinary Approaches in Educational Studies*, (pp. 20 29). Department of Education: Swami Vivekananda University. (ISBN no: 978-93-340-7138-2).
- Mitra, S., Bhattacharya, S. & **Mitra, N.**, (2024). A Study on Internet Addiction, Perceived Stress & Procrastination Among College & University Students. In N. Mitra (Ed.). *Mapping the Mind: An Exploration of Psychology*, (pp. 91 101). Integrated Publications: New Delhi. Doi: https://doi.org/10.62778/int.book.433
- Roy, K., & Mitra, N., (2024). A Comparative Study of Trait Emotional Intelligence, Emotional Adjustment, Temperament and Character Between Female Dancer and Non-Dancer Adolescents. In N. Mitra (Ed.). *Mapping the Mind: An Exploration of Psychology*, (pp. 91 101). Integrated Publications: New Delhi. Doi: https://doi.org/10.62778/int.book.433
- Hazra, M., Biswas, A., Chatterjee, S., & Mitra, N., (2024). Effect of Leadership on Organizational Behaviour and Workplace Stress. In N. Mitra (Ed.). *Mapping the Mind: An Exploration of Psychology*, (pp. 123 - 130). Integrated Publications: New Delhi. Doi: https://doi.org/10.62778/int.book.433
- Hazra, M., Gupta, S., Ghowrui, A., & Mitra, N., (2024). Effect of Sleep Deprivation on Emotional Regulation of the Adults. In N. Mitra (Ed.). *Mapping the Mind: An Exploration of Psychology*, (pp. 131 137). Integrated Publications: New Delhi. Doi: https://doi.org/10.62778/int.book.433
- Mallik, S., Samanta, M., & **Mitra**, **N**., (2024). Role of Self-Esteem, Family Pathology, Social Support among the Relapse Prevention of Delinquents: A Comparative Study. In N. Mitra (Ed.). *Mapping the Mind: An Exploration of Psychology*, (pp. 157 167). Integrated Publications: New Delhi. Doi: https://doi.org/10.62778/int.book.433
- Mallik, S., Mukherjee, S., & **Mitra, N**., (2024). Psychosocial Factors Influencing Online Buying Behaviour amongst College Students in Metropolitan Area. In N. Mitra (Ed.). *Mapping the Mind: An Exploration of Psychology*, (pp. 169 179). Integrated Publications: New Delhi. Doi: https://doi.org/10.62778/int.book.433
- Ghosh, E. & **Mukherjee**, **P**. (2024). A study on the level of video game addiction among adolescent students of urban population. International Journal Psychology Research; 6(1), 10-13. Doi: <a href="https://doi.org/10.33545/26648903.2024.v6.i1a.43">https://doi.org/10.33545/26648903.2024.v6.i1a.43</a>
- Ghosh, E. **Mukherjee**, **P**. & Maity, A. (2024). Relationship between anxiety and internet addiction among adolescent students from urban area. International Journal of Psychology Sciences; 6(1):1-3.Doi: https://doi.org/10.33545/26648377.2024.v6.i1a.33.

- Ghosh, E., **Mukherjee**, **P**. & Ghosh, S. (2024).A comparative study on objectified body image and self- efficacy among young adult and middle aged women from urban area. International Journal Psychology Research.; 6(1):5-9. Doi: <a href="https://doi.org/10.33545/26648903.2024.v6.i1a.42">https://doi.org/10.33545/26648903.2024.v6.i1a.42</a>
- Ghowrui, A. & **Mukherjee**, **P**. (2024). Effect of gender discrimination on resilience and motivation of women. International Journal of Psychology Sciences, 6(1), 27-30. Doi: <a href="https://doi.org/10.33545/26648377.2024.v6.i1a.39">https://doi.org/10.33545/26648377.2024.v6.i1a.39</a>.
- Bhattacharyya, M. & Mukherjee, P. (2024). Is attachment style correlated with anxiety, depression and gaming addiction? A comparative study on style of attachment of college students. International Journal Psychology Research; 6(1):78-80. Doi: <a href="https://doi.org/10.33545/26648903.2024.v6.i1b.53">https://doi.org/10.33545/26648903.2024.v6.i1b.53</a>.
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- 8.Bhattacharyya, M. & **Mukherjee**, **P**. (2024). The impact of parenting style on anxiety and gaming addiction among the young adults. International Journal of Research in Psychiatry; 4(2) Part A, 2024 DOI: <a href="https://doi.org/10.22271/27891623.2024.v4.i2a.54">https://doi.org/10.22271/27891623.2024.v4.i2a.54</a>.
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- Jha, K. & **Mukherjee**, **P.** (2024). A comparative study on the influence of perceived stress and relationship satisfaction on somatic symptoms among married women. International Journal of Psychiatry Research; 6 (2, Part A). DOI: <a href="https://doi.org/10.33545/26648962.2024.v6.i2a.75">https://doi.org/10.33545/26648962.2024.v6.i2a.75</a>.
- Pal,P., Ghosh,E. & **Mukherjee**, **P**. (2024). Breaking the mold: How challenging gender stereotypes influences marital quality. International Journal of Applied Research; 10 (11, Part-F). DOI: <a href="https://doi.org/10.22271/allresearch.2024.v10.i11f.12193">https://doi.org/10.22271/allresearch.2024.v10.i11f.12193</a>.
- Roy Bhowmik, A., Chakraborty, M. & **Mukherjee**, **P**. (2024). Effectiveness of music therapy in managing sleep deprivation. International Journal of Multidisciplinary Trends; 6 (11) Part-B, Pp 107-110. DOI: <a href="https://doi.org/10.22271/multi.2024.v6.i11b.519">https://doi.org/10.22271/multi.2024.v6.i11b.519</a>.
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- International Journal of Multidisciplinary Trends; 7 (2) Part A, Pp 12-15. https://doi.org/10.22271/multi.2025.v7.i2a.588.
- Ghosh, D., Farhana, S., Ghosh, E. & **Mukherjee**, **P.** (2025). Influence of Bengali fictional literature on young readers. International Journal of Applied Research; 11 (2), Pp 62-64. 10.22271/allresearch.2025.v11.i2a.12339.
- Majumder, A. & Mukherjee, P. (2025). The Ripple Effect: How Teacher Burnout, School Climate and Parental Stress Impact Adolescent Students' Emotional Well-being. International Journal of Science and Research; 14 (5), Pp 1539-1545. https://dx.doi.org/10.21275/MR25525150638.
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- Ghosh, E. & **Mukherjee**, **P.** (2025). A comparative Study on Instagram addiction and Marital Quality among middle aged married women. International Journal On Science and Technology; 16(3), Pp 1-6. <a href="https://doi.org/g9t2x6">https://doi.org/g9t2x6</a>.
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- Mondal, I., Sarkar, L. & Mukherjee, P. (2024). Effects of Emotional Intelligence and Mental Health Status on Academic Achievement of College Students. In N. Mitra (Ed.). Mapping the Mind: An Exploration of Psychology, (pp. 11- 22). Integrated Publications: New Delhi. Doi: <a href="https://doi.org/10.62778/int.book.433">https://doi.org/10.62778/int.book.433</a>.
- Mukherjee, P., Gyanranjan, M., Riba, M.J. & Goswami, S. (2024). Exploring the Role of Spiritual Practices on Well- being and Happiness: A Comparative Study Among College Going Male Students. In N. Mitra (Ed.). *Mapping the Mind: An Exploration of Psychology*, (pp. 69-78). Integrated Publications: New Delhi. Doi: <a href="https://doi.org/10.62778/int.book.433">https://doi.org/10.62778/int.book.433</a>.
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- Ghosh, E. & Mukherjee, P. (2025). Psychological Impact of Social Media on Youth. In Dr. U. Mufti, Dr. A. Khan, Drx. L. Suthar (Ed.). *Exploring the Cosmos: Interdisciplinary Research Approach*, (pp. 51-61). Notion Press, ISBN: 979-889673635-6. Publish Date: January 2025.

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- Sarkar, L. (2025). Understanding Pica: An Exploration of an Uncommon Eating Disorder. In N. Mitra (Ed.), *Contemporary Perspectives in Psychology* (pp. 20-29). Penprints India. ISBN: 978-81-988004-5-9
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- Chatterjee, S., **Sarkar, L.** (2024). A Quantitative Comparative Study to analyze the Stress Reduction Effect in Pet Owners (Dog) and to The Degree It Differs from Non-Pet Owners in Urban Settings at Kolkata. In N. Mitra (Ed.), *Mapping the Mind: An Exploration of Psychology* (pp. 45-55). Integrated Publications: New Delhi. DOI: <a href="https://doi.org/10.62778/int.book.433">https://doi.org/10.62778/int.book.433</a>
- Sarkar, S., Sarkar, L. (2024). Effect of Emotional Intelligence on Aggression and Job Satisfaction at Workplace. In N. Mitra (Ed.), *Mapping the Mind: An Exploration of Psychology* (pp. 57-67). Integrated Publications: New Delhi. DOI: <a href="https://doi.org/10.62778/int.book.433">https://doi.org/10.62778/int.book.433</a>
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- Hatai, T. Bhowmik, A. & **Mitra**, **R.** (2024). Influence of Social Media on Depression, Anxiety and Psychological Distress in Adolescents. International Journal of Psychology Sciences. 2024;6(1): 17-20.
- Mitra, R. (2025). Exploring the Complexities of Persecutory Delusions: A Case Study of Patient Experiences and Treatment Outcomes. International Journal of Research in Psychiatry. 2025; 5(1): 05-08.
- Mitra, R. (2025). Narcissism & Narcissistic Personality Disorder: An Interlacing Threads of Self Obsession. Contemporary Perspectives in Psychology. (pp 30-52). ISBN: 978-81-988004-5-9. Penprints.
- Mitra, R. (2025). Building Walls: The Intersection of Attachment Styles and Stonewalling Behavior. Contemporary Perspectives in Psychology. (pp 188-199). ISBN: 978-81-988004-5-9. Penprints.

#### **Patent**

Title of the invention: AN EFFICIENT METHOD AND SYSTEM FOR PREPARING NUTRIENT-RICH BROCCOLI AND CASHEW NUT SPREAD. Application Number: 202531001844 Journal No 03/2025 Filing Date: 08/01/2025 Date of Publication 17/01/2025 Author: Mitra Dhara Rupali, Poulomi Mistry, Sengupta Prantika, Das Shreyasi, Dubey Kumari Kriti, Mondal Kumar Kingsuk, **Mukherjee Papia**, Jaiswal Ganesh Swapnil, Sudam Kalyani, Thote Londhe Vitthal Muktanand, Dagaduappa Manmath Sontakke, Maske Vishwanath Sachin,

## Conferences, Workshops, Seminars organized

- Workshop On Rorschach Inkblot Test, date: 13th & 14th January 2024
- Workshop On Thematic Apperception Test (TAT), date: 27th & 28th January 2024
- A 3-day International conference, Global HealthCon 2024, date: 22nd, 23rd and 24th February, 2024
- No-Smoking Day Observation, date: 13th March, 2024
- Workshop on Empowering Minds: A day of Solution Focused Brief Therapy Insights, 15th March, 2024
- Workshop on Cognitive Behaviour Therapy and Case discussions, date: 29th May, 2024
- Global Health Con 2024: Challenges and Explications 2.0, date: 20th & 21st June

- International Conference on Restructuring the Canon, date: 31st August 2024
- International Conference on Scripting Sustainable Development Goals, date: 24th and 25th September 2024
- A one-day seminar on Not all omegas are good, date: 14th October 2024
- A 3-day International Conference on Advances in Psychology & Disability Management, date 4th to 6th February 2025
- A one-day seminar on Drug Addiction & Journey of Recovery: Sharing Stories of Lived Experiences, date: 15th January 2025
- A two-day International Workshop on Solution Focused Brief Therapy, date 17th and 18th February, 2025
- A one-day seminar on Entrepreneurship: A Unique Career for Neurodivergent Individuals, date 9th April.
- Webinar on Clinical Psychology: Scope, Nature & Applicability, date: 6th May 2025
- Webinar on Counselling and its Ethics, date: 7th May 2025
- A one-month certificate course on Basics of Graphology, date August September, 2025
- A one-day workshop on Gatekeeper Training on Suicide Prevention, date 22<sup>nd</sup>
   September, 2025

# DEPARTMENT OF OPTOMETRY

# Brief Details about the Department

The advancement of Optometry has significantly improved human vision and overall wellbeing. In the past, eye problems were often neglected or remained untreated, but with the development of modern diagnostic tools, advanced optical devices, contact lens innovations, and surgical techniques, eye care has become a highly specialized field. Today, optometrists are not limited to correcting refractive errors; they also play a crucial role in detecting and managing ocular diseases, preventing vision loss, and promoting lifelong eye health. Recognizing the need for qualified professionals in this growing sector, Swami Vivekananda University offers a four-year Bachelor of Optometry (B. Optom) honours program designed to nurture graduates with strong academic knowledge and practical clinical skills. The curriculum blends fundamental sciences such as optics, ocular physiology, ocular anatomy with professional training in ophthalmic optics, clinical refraction, binocular vision, contact lens practice, low vision care, and community eye health etc. With the rapid growth of technology, rising demand for eye care services, and increasing global standards, the department emphasizes hands-on training, modern facilities, and guidance from expert faculty. This ensures that students remain competitive, competent, and ready to contribute to the everevolving field of vision science. Begin your journey in Optometry today and shape a brighter future in eye care.

### Courses Offered:

Bachelor of Optometry

## Faculty Details:

Name of the Teacher	Specialization	
Dipanwita Ghosh	Public health and community eye care, Binocular Vision and Orthoptics	
Prabirendranath Sinha	Clinical Optometry & Disease	
Manas Chakraborty	Contact Lenses & Vision Therapy	
Arup Saha	Clinical Refraction and Ocular disease	
Srimanti Sarkar	Occupational Optometry & Vision Therapy	
Anusua Das	Neuro Optometry & Low Vision	
Rikta Paul	Low Vision Rehabitation	
Sourav Karmakar	Binocular Vision & Behavioral Psychology	
Partha Pratim Seal	Pediatric Optometry	
Nalini Ranjan Singh	Geriatric Optometry	
Sriparna Das	Binocular Vision & Orthoptics	
Raya Sinha	Contact Lens Specialist	
Subhra Chandra Chandra	Vision Therapy & Neuro-Optometry	
Sudha Prasad	Refractive Surgery Co-management	
Dr. Athokpam Poireiton	Public Health Optometry	

7	Ms. Aratrika Chail	Binocular Vision and Vision Therapy
8	Ms. Anusuya Das	Neuro optometry and low vision

## External Members on the Board of Studies:

Dr. Goutam Pradhan	Assistant Professor and head, Department of Optometry, Haldia Institute of Management
Mr. Arnab Banerjee	Assistant Professor and head, Department of Optometry, NSHM Knowledge Campus
Dr. Ranbir Ghosh	Professional Sales Manager of Essilor

Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers

Dipanwita Ghosh "Contact Lens Practice Manual" A Comprehensive Guide to Wearing and caring Contact lens Soft Contact Lens Design & Fitting (2024)

Dipanwita Ghosh, Partha Haradhan Chowdhury and Brinda Shah, Anusuya Das ,Eye and Vision Science: Researches and Innovations Development of keratoconus after collagen cross linking (2024)

Dipanwita Ghosh, Partha Haradhan Chowdhury and Brinda shah, Effectiveness of Syntonic Phototherapy in Management of Amblyopia(2024)

Dipanwita Ghosh, Partha Haradhan Chowdhury and Brinda shah, The New Vision in Blind with Bionic Eye(2024)

Dipanwita Ghosh, Partha Haradhan Chowdhury, Brinda Shah Frontiers in Allied Health Research Challenges And Facilitators Of Assistive Technology Adoption Among Children With Low Vision " (2025)

Dipanwita Ghosh, Partha Haradhan Chowdhury, Brinda Shah Clinical and Research Insights in Allied Health Sciences Correlation between Visual Impairment and Motor Severity in Cerebral Palsy: An Observational Study from India 2025

Dipanwita Ghosh , Partha Haradhan Chowdhury , Brinda Shah Innovation in Allied Health Comparative epidemiology of ocular manifestation in Marfan syndrome; A cross section al study from India 2025

Dipanwita Ghosh , Partha Haradhan Chowdhury , Brinda Shah Applied Research in clinical Allied Science Correlation between timing of intervention and severity of ocular anomalies in miller syndrome 2025

Arup Saha1 and Bulti Saha Debnath Eye and Vision Science: Researches and Innovations A review study on retinal complications due to diagnosis delay in case of congenital glaucoma. 2024

Diptiranjan Panda1, Arup Saha, Dr. Manas Chakrabarty, Dr. Prabirendra Nath Sinha, Bulti Saha Debnath Eye and Vision Science: Researches and Innovations Prevalence of untreated matured cataract in rural and urban areas. 2024

Mr. Suraj Singh1, Arup Saha and Bulti Saha Debnath Eye and Vision Science: Researches and Innovations A-Scan technique: Immersion vs contact. Which one should be the ideal? (Patient data and survey report). 2024

Arup Saha1, Bulti Saha Debnath and Madhab Maharan a Eye and Vision Science: Researches and Innovations A review study on air pollution impacts affecting ocular health & manifestation. 2024

Aklima Khatun1, Arup Saha and Bulti Saha Debnath Eye and Vision Science: Researches and Innovations Exploring the effects of NdYAG capsulotomy and changes of IOP during post-sur gical condition 2024

Arup Sah Contact Lens Practice Manual By Swami Vivekananda University RGP Lens Design & Fitting. 2024

Diptiranjan Panda1, Arup Saha, Dr. Manas Chakrabarty, Dr. Prabirendra Nath Sinha, Bulti Saha Debnath Eye and Vision Science: Researches and Innovations Impact of excess technology use in daily life & ocular manifestation. 2024

Arup Saha, Bulti Saha Debnath Frontiers in Allied Health Research Treatment Of Ocular Surface Disorders Using Contact Lenses ,2025

Arup Saha, Bulti Saha Debnath Clinical and Research Insights in Allied Health Science s Vitamin D deficiency and its related ocular manifestation, 2025

Arup Saha, Bulti Saha Debnath Innovation in Allied Health Review study on early presbyopic condition; its pathophysiology and management, 2025

Arup Saha, Bulti Saha Debnath Applied Research in clinical Allied Science A review study on latent hyperopic conditions and its affects in our daily activities 2025

Dr. Manas Chakraborty Contact Lens Practice Manual By Swami Vivekananda University Soft Toric Contact Lens Design & Fitting 2024

Dr. Manas Chakraborty, Frontiers in Allied Health Research The Pathophysiology And Clinical Investigation Regarding Diabetic Retinopathy, 2025

Dr. Manas Chakraborty, Clinical and Research Insights in Allied Health Sciences Thyroid disorder s and effects in ocular physiology, 2025

Dr. Manas Chakraborty, Innovation in Allied Health Frequent fasting tendency and its bad effect on ocular health 2025

Dr. Manas Chakraborty, Applied Research in clinical Allied Science Excessive near work and ocular complications 2025

Dr. Prabirendra Nath Sinha, Frontiers in Allied Health Research, Refractive Surgery Update: Methods, Results, And Complications, 2025

Dr. Prabirendra Nath Sinha, Clinical and Research Insights in Allied Health Sciences, The Role of Optometry in Addressing Ocular Surface Disease, 2025

Dr. Prabirendra Nath Sinha, Innovation in Allied Health Misalignment of the eye in the elderly visitor to a university eye clinic 2025

Dr. Prabirendra Nath Sinha, Applied Research in clinical Allied Science Migraine and other headaches; the role of the optometrist 2025

Srimanti Sarkar, Frontiers in Allied Health Research Focusing On Education & Quality Of Life A Review For Myopia's Impact On Academic Performance and Psychological Well Being Among School Children And Adolescents 2025

Srimanti Sarkar, Clinical and Research Insights in Allied Health Sciences The influence of Omega 3 Fatty acids on Dry Eye Syndrome: A review of clinical evidence 2025

Srimanti Sarkar, Innovation in Allied Health Impact of sugar intake on the increasing prevalence of myopia in children and adolescent; A Narrative Review 2025

Srimanti Sarkar, Applied Research in clinical Allied Science A case report on pterygium emphasizing on its pathophysiology and diagnosis,2025

Rikta Paul, Frontiers in Allied Health Research Improvement In Reading Performance Of Low Vision Patients After Receiving Low Vision Rehabilitation 2025

Rikta Paul, Clinical and Research Insights in Allied Health Science's Association of Sunlight Exposure with Visual Impairment: A Systematic Review. 2025

Rikta Paul, Innovation in Allied Health Optimal illuminations for reading speed; A narrative review of scientific literature & impact on efficacy and proficiency, 2025

Rikta Paul, Applied Research in clinical Allied Science Influence of lens thickness on the accommoative range in healthy eyes; A Narrative Review 2025

Anusuya Das, Innovation in Allied Health Impact of chain smoking on Binocular vision disfunction:unraveling the neurva scular and Neuroplastic mechanism 2025

Anusuya Das Applied Research in clinical Allied Science The association of ocular disease with chronic kidney disease 2025

Anusuya Das CONTA CT LENS PRACTI CE MANUA L Contact Lenses and the Anterior Segment of the Eye 2024

Anusuya Das ,Eye and Vision Science Role of Atropine in Progressive Myopia 2024

Anusuya Das, Frontiers in Allied Health Research Unlocking The Mind's Eye: Exploring Eye Movement Abnormalities As Biomarkers In Mental Health Diagnosis 2025

Anusuya Das ,Clinical and Research Insights in Allied Health Sciences Visual Pathway s to Early Alzheimer's Detection: How Optometrists Can Make a Difference 2025

Mr. Sourav Karmakar, Stereochromatic Vergence Therapy Device for Visual Rehabilitation

Mr. Sourav Karmakar, Integrated Night Blindness Detection System

# Conferences, Workshops, Seminars organized

Conducted **14** Community Eye Camps across various regions, providing free eye screening, vision testing, and awareness programs to underserved populations. (Details Attached in annexure)

Participated actively in the Nirmal Mela Startup Fair and Model Competition held at Swami Vivekananda University, showcasing innovative health solutions and research models.

Organized 1 Industry Visit to the Essilor Luxottica Lab on 26<sup>th</sup> June'2025, providing students hands-on exposure to the latest technologies and manufacturing processes in the eyewear industry.

Conducted a Hands-on Workshop on Orthoptic Assessment on 22<sup>nd</sup> July'2025, enabling students to gain practical skills in binocular vision testing and vision therapy techniques.

Collaborated with the Institution's Innovation Council (IIC) to conduct a workshop on "Innovation Pathways in the Field of Optometry" on 8th March 2025, encouraging students and faculty to explore research and innovation.

Successfully hosted the International Conference on Healthcare Researches and Development (ICHRD 2025) from 4th to 6th February 2025. The event attracted experts and researchers from various disciplines and provided a platform for knowledge exchange.

Students participated in the Vision Quest Conference at Susrut Eye Hospital on 31st August'2025, securing the 1st Prize in the Quiz Competition.

 Our Head of Department, Mrs. Dipanwita Ghosh, was honored for her outstanding contribution as a session moderator.

At the Bengal Optometry Conference held on 23rd February 2025, our students won 1st Prize in the Model Competition and 1st Prize in the Quiz Competition.

 Mrs. Dipanwita Ghosh also presented a scientific paper and received an award for her scholarly contribution.

Our students participated in the Kolkata Optometry Conference held on 19th and 20th April 2025, further strengthening their academic and professional exposure

# **Department of Physiotherapy**

#### **Brief Details about the Department**

The Physiotherapy Department is well-equipped with modern facilities to provide comprehensive clinical training and research opportunities. It houses a dedicated **Exercise**Therapy Lab for therapeutic exercises and rehabilitation techniques, an advanced Electrotherapy Lab with state-of- the-art modalities for pain management and neuromuscular re-education, and a specialized Gait Lab for assessment and analysis of posture, balance, and walking patterns. Guided by a team of highly qualified and experienced faculty members, the department ensures quality education, skill development, and clinical exposure, preparing students to excel in evidence-based physiotherapy practice.

#### **Courses Offered:**

BPT (Bachelor of Physiotherapy)

MPT (Master of Physiotherapy) in Neurology, Orthopedics, Cardiopulmonary & Sports

Faculty Details

Name of the Teacher	Specialization		
Dr. Sourav Mitra (PT)	Neuroplasticity, Graded Motor Imagery, Neurorehabilitation		
Dr. Sunayana Ghosh Dostider (PT)	Modern concepts on orthopedic rehabilitation, Kinesiotaping and Rigid taping, Manual therapy, Sports rehabilitation		
Dr. Sanhita Bose (PT)	Musculoskeletal rehabilitation, chronic Pain management, sports injury prevention and recovery, Paediatric orthopedic Physiotherapy, neuro-orthopedic Physiotherapy		
Dr. Gourab Jyoti Roy (PT)	Cardio and Respiratory Rehabilitation, Manual Therapy, Prehabilitation for athletes, Advanced evidence-based physiotherapy treatments, Sports Physiotherapy		
Dr. Raveena Kothari (PT)	Cardiac rehabilitation, Pulmonary rehabilitation, Critical care rehabilitation		
Dr. Khairul Islam (PT)	Neurorehabilitation		
Dr. Mainak Sur (PT)	Sports rehabilitation		
Dr. Pritam Singha (PT)	neuro-orthopedic Physiotherapy		
Dr. Patralika Nath (PT)	Critical care rehabilitation		
Dr. Barnana Roy (PT)	Musculoskeletal rehabilitation, chronic Pain management, sports injury prevention and recovery, Paediatric orthopedic Physiotherapy, neuro-orthopedic Physiotherapy		

Dr. Kamalika Bhattacharya (PT)	Modern concepts on orthopedic rehabilitation, Kinesiotaping and Rigid taping, Manual therapy, Sports rehabilitation	
Dr. Sujata Deb Roy (PT)	Cardio and Respiratory Rehabilitation, Manual Therapy, Prehabilitation for athletes, Advanced evidence-based physiotherapy treatments, Sports Physiotherapy	
Dr. Arpita Chakraborty	Pulmonary rehabilitation	
Dr. Koushik Bhattacharya	neuro-orthopedic Physiotherapy	
Dr. Bikramaditya Sahoo (PT)	Neuroplasticity, Graded Motor Imagery, Neurorehabilitation	
Dr. Suvradeep Ganguly (PT)	Cardio and Respiratory Rehabilitation, Manual Therapy, Prehabilitation for athletes, Advanced evidence-based physiotherapy treatments, Sports Physiotherapy	
Dr. Swarup Ghosh (PT)	Musculoskeletal rehabilitation, chronic Pain management, sports injury prevention and recovery, Paediatric orthopedic Physiotherapy, neuro-orthopedic Physiotherapy	

#### **External Members on the Board of Studies:**

Prof. Satyen Bhattacharyya	Associate Professor, Burdwan Institute of Medical & Life Sciences
Prof. M S Anwar	Principal & Associate Professor, Burdwan Institute of Medical & Life Sciences
Prof. Anwesh Pradhan	Associate Professor, Nopany Institute of Healthcare Studies
Dr. Amartya Mallick (PT)	Assistant Professor, Burdwan Institute of Medical & Life Sciences
Dr. Subhanjan Das (PT)	Consultant Physiotherapist, Former Associate Professor, Garden City University
Dr. Sampurna Sett (PT)	Chief Physiotherapist, Woodlands Hospital

## Publications Details (Conference / Patent / Research Papers)

Write in different section for Conference Proceedings, Patent and Research Papers:

- Sourav Mitra, MS Anwar, Satyen Bhattacharyya. Effectiveness of core stability exercises along with swiss ball for improvement of trunk control in stroke patients: A pilot study. *International Journal of Multidisciplinary Trends* 2024; 6(12): 52-54, DOI: https://doi.org/10.22271/multi.2024.v6.i12a.537
- Sourav Mitra, Satyen Bhattacharyya, Amartya Mallick, Priyanka Das. Synergistic healing: Efficacy of extracorporeal shock wave therapy and low-level laser therapy in managing plantar fasciitis heel pain: A pilot Study. *International Journal of Biology Sciences* 2025; 7(1): 17-19, DOI: <a href="https://dx.doi.org/10.33545/26649926.2025.v7.i1a.266">https://dx.doi.org/10.33545/26649926.2025.v7.i1a.266</a>
- Khairul Islam, Sourav Mitra, Tajmina Parbin, Gourab Jyoti Roy. Core and balance:

- Advancing rehabilitation for multiple sclerosis patients. *International Journal of Biology Sciences 2025*; 7(1): 06-09, DOI: https://dx.doi.org/10.33545/26649926.2025.v7.i1a.263
- Sourav Mitra, Satyen Bhattacharyya, Amartya Mallick, Priyanka Das. Pain relief in cervicogenic headache: A pilot study on manipulative therapy efficacy. *International Journal of Advanced Academic Studies* 2025; 7(1): 110-112, DOI: https://doi.org/10.33545/27068919.2025.v7.i1b.1341
- Sourav Mitra, Md. Zulfaquar Khan, Abhiprata Naru. Pain unplugged: Evaluating cupping therapy in carpal tunnel syndrome A single case study, *International Journal of Applied Research* 2024; 10(12): 262-264,DOI: https://dx.doi.org/10.22271/allresearch.2024.v10.i12d.12241
- Dr.SouravMitra(PT)Dr.UrusiaParveen(PT),Dr.GourabJyotiRoy(PT),Dr.
   Saher Ansari,PratyushGhosh (PT),Saikat Sinha A Multimodal Framework Combining the 6-Minute Walk Test, Virtual Reality, and Artificial Intelligence for Functional Assessment and Rehabilitation in Pediatric ALS. Orcid ID: 0000-0002-6508-9400.ISSN NO: 1434-9728/2191-0073.
- Sourav Mitra, Md. Zulfaquar Khan and Abhiprata Naru. Effects of Cupping Therapy for the Improvement of Pain in Carpal Tunnel Syndrome Patient A Case Study. *Emerging Interventions in Physical Therapy and Rehabilitation* 2024. Ed (1): 01-09. DOI: <a href="https://doi.org/10.22271/ed.book.3024">https://doi.org/10.22271/ed.book.3024</a>
- Sourav Mitra. A Case Study on Vestibular Maneuvre Combined with Home Exercises for Vestibular Disorder Patient. *Emerging Interventions in Physical Therapy and Rehabilitation* 2024. Ed (1): 13-18. DOI: <a href="https://doi.org/10.22271/ed.book.3024">https://doi.org/10.22271/ed.book.3024</a>
- Sourav Mitra. Effects of Core-stability Exercises in Treating a Patient with Postoperative Lumbar Disc Herniation: A Case Study. *Emerging Interventions in Physical Therapy and Rehabilitation* 2024. Ed (1): 21-28. DOI: <a href="https://doi.org/10.22271/ed.book.3024">https://doi.org/10.22271/ed.book.3024</a>
- Sourav Mitra. Efficacy of Extracorporeal Shock Wave Therapy (ESWT) Along with Low Level Laser Therapy (LLLT) for the Improvement of Heel Pain in Plantar Fasciitis Patient A Case Study. *Emerging Interventions in Physical Therapy and Rehabilitation* 2024. Ed (1): 31-38. DOI: <a href="https://doi.org/10.22271/ed.book.3024">https://doi.org/10.22271/ed.book.3024</a>
- Sourav Mitra. Efficacy of Manipulative Therapy for Improving Pain in Cervicogenic Headache Patient A Case Study. *Emerging Interventions in Physical Therapy and Rehabilitation* 2024. Ed (1): 41-48. DOI: <a href="https://doi.org/10.22271/ed.book.3024">https://doi.org/10.22271/ed.book.3024</a>
- Gourab Jyoti Roy, Ammar Faisal Khan, Fatima Saeed and Urusia Parveen. Proprioceptive training's impact on postural stability in diabetic neuropathy individuals. International Journal of Advance Academic Studies. IJAAS 2025; 7(1): 170-175. E-ISSN: 2706-8927.
- Khairul Islam, Gourab Jyoti Roy and Tajmina Parbin. A case study on the role of interrupted galvanic stimulation in neuromuscular disorders: Focus on brachial amyotrophy. International Journal of Advance of academic Studies. IJAAS 2025; 7(1): 106-109. E-ISSN: 2706-8927
- Gourab Jyoti Roy, Fatima Saeed and Khairul Islam. BMI and physical fitness relationship among students. International Journal of Applied Research. IJAR 2024; 10(12): 245-249. P-ISSN: 2394-7500 [Impact Factor (RJIF): 8.4]
- Gourab Jyoti Roy, Urusia Parveen and Fatima Saeed. Effects of task-oriented learning on the functional mobility and balance of kids with cerebral palsy. International Journal of Biology Sciences. IJBS 2025; 7(1): 20-27. E-ISSN: 2664-9934.
- Gourab Jyoti Roy and Saher Ansari. The efficiency of cardiac rehabilitation on cardio-pulmonary health in elderly populations. International Journal of Multidisciplinary Trends. IJMT 2024; 6(12): 38-40. E-ISSN: 2709-9369.
- A Singh, GJ Roy, R Thapa, T Dumi. Respiratory Physiotherapy in Allergic

- Bronchopulmonary Aspergillosis: A Case Study On Efficacy And Outcomes. Latin American Journal of Pharmacy: A Life Science Journal 2023; 42 (10), 471-476.
- A Singh, GJ Roy, R Thapa, T Dumi. Unlocking Healing Potentials: Soft Tissue Manipulation As Mechanotherapy. Latin American Journal of Pharmacy: A Life Science Journal 2023; 42 (10), 454-459.
- Gourab Jyoti Roy, Fatima Saeed and Urusia Parveen. "Effectiveness of Stretching and Weight Bearing Exercises in the Management of Spastic Paraplegia in Patient with HSP". Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp: 118-131, 2024. ISBN: 978-93-6135-742-8.
- Gourab Jyoti Roy and Saher Ansari. "Improvements in Cardiopulmonary Fitness on Cardiac Rehabilitation Patients". Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp: 169-178, 2024. ISBN: 978-93-6135-742-8.
- Gourab Jyoti Roy and Heena Das. "Relationship between BMI and Physical Fitness among College Going Students". Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp: 180-191, 2024. ISBN: 978-93-6135-742-8.
- Gourab Jyoti Roy, Fatima Saeed and Urusia Parveen. "Impact of Task Oriented Training in Cerebral Palsy on Functional Mobility and Balance in Child". Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp. 151-167, 2024. ISBN: 978-93-6135-742-8.
- Gourab Jyoti Roy, Urusia Parveen and Fatima Saeed. "Effects of Proprioceptive Training on Postural Stability Iin Subjects with Diabetic Neuropathy". Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp. 135-149, 2024. ISBN: 978-93-6135-742-8.
- Sunayana Ghosh Dostider. Balance rehabilitation treatment in patients with parkinson's disease: A randomized controlled pilot study. International Journal of Advance Academic Studies. IJAAS 2025; 7(1): 103-105. https://doi.org/10.33545/27068919.2025.v7.i1b.1339.
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- Sunayana Ghosh Dostider. Balance Rehabilitation Treatment in A patient with Parkinson's Disease: A Case Study. Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp: 201-210, 2024. ISBN: 978-93-6135-742- 8. https://doi.org/10.22271/ed.book.3024
- Sunayana Ghosh Dostider. Effectiveness of Russian Current in Knee Osteoarthritis: A Case Study. Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp. 211-219, 2024. ISBN: 978-93-6135-742- 8. https://doi.org/10.22271/ed.book.3024
- Sunayana Ghosh Dostider. Physiotherapy Management in a Case of Muscular Dystrophy: A Case Study. Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp: 221-230, 2024. ISBN: 978-93-6135-742-8. https://doi.org/10.22271/ed.book.3024

- Sunayana Ghosh Dostider. Efficacy of Pilates Exercises on Pain and Function in Chronic Low Back Pain Patient: A Case Study. Emerging Interventions in Physical Therapy and Rehabilitation. Vol. 1, pp: 231-238, 2024. ISBN: 978-93-6135-742- 8. https://doi.org/10.22271/ed.book.3024
- Sanhita Bose. Pinpoint precision: Exploring dry needling as a game-changer for golfer's elbow, *International Journal of Applied Research*, ISSN Print: 2394-7500, *ISSN Online:* 2394-5869, *Impact Factor (RJIF)*: 8.4, *IJAR* 2024; 10(12): 250-253.
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- Sanhita Bose. Unlocking flexibility: The effects of cupping therapy on hamstring mobility and muscle function. *International Journal of Biology Sciences* 2025;7(1):13-16. DOI: 10.33545/26649926.2025.v7.i1a.265, P-ISSN: 2664-9926, E-ISSN: 2664-9934
- Sanhita Bose. Comparison of dry needling and dry cupping for Pelvic positional fault caused by quadratus lumborum Myofascial trigger points, *International Journal of multidisciplinary trends*, E-ISSN: 2709-9369, P-ISSN: 2709-9350, IJMT 2024; 6(12): 48-51, DOI: https://doi.org/10.22271/multi.2024.v6.i12a.536.
- Sanhita Bose. "The Impact of Suryanamaskar on Functional Mobility And Trunk Flexibility in Elderly Men", Emerging Interventions In Physical Therapy And Rehabilitation, Vol. 1, pp: 289-299, 2024. ISBN: 978-93-6135-742-8.
- Sanhita Bose. "Impact of Prolonged Mobile Phone Use on Neck Posture, Headaches, and Cervical Range of Motion in University Students", Emerging Interventions In Physical Therapy And Rehabilitation, Vol. 1, pp: 275-287, 2024. ISBN: 978-93-6135-742-8.
- Sanhita Bose. "Effect of Cupping Therapy on Range of Motion and Muscle Activity of the Hamstring Muscle Compared to Passive Stretching", Emerging Interventions In Physical Therapy And Rehabilitation, Vol. 1, pp. 263-273, 2024. ISBN: 978-93-6135-742-8.
- Sanhita Bose. "Dry Needling for Golfer's Elbow: Clinical Outcomes And Efficacy", Emerging Interventions In Physical Therapy And Rehabilitation, Vol. 1, pp. 251-261, 2024. ISBN: 978-93-6135-742-8.
- Sanhita Bose. "Comparison of Dry Needling and Dry Cupping in Positional Fault of Pelvis Due to Myofascial Trigger Points in Quadratus Lumborum", Emerging Interventions In Physical Therapy And Rehabilitation, Vol. 1, pp. 239-250, 2024. ISBN: 978-93-6135-742-8.
- Khairul Islam. The impact of blood flow restriction training on lateral epicondylitis grip strength and disability.ISSN Print: 2394-7500, ISSN Online: 2394-5869, CODEN: IJARPF. Int J Appl Res 2024;10(12):257-261. DOI: 10.22271/allresearch.2024.v10.i12d.12240.
- Khairul Islam, Gourab Jyoti Roy, Tajmina Parbin. A case study on the role of interrupted galvanic stimulation in neuromuscular disorders: Focus on brachial amyotrophy.P-ISSN: 2706-8919 E-ISSN: 2706-8927.Int J Adv Acad Stud 2025;7(1):106-109. DOI: 10.33545/27068919.2025.v7.i1b.1340
- Khairul Islam and Raki Biswas. A case study on the Impact of microcurrent therapy on pain and function in De Quervain's disease.E-ISSN: 2709-9369 P-ISSN: 2709-9350,IJMT 2024; 6(12): 44-47,DOI: https://doi.org/10.22271/multi.2024.v6.i12a.535
- Khairul Islam. A case study on the The impact of blood flow restriction training on lateral epicondylitis grip strength and disability.ISSN Print: 2394-7500 ISSN Online: 2394-5869 mpact Factor (RJIF): 8.4 IJAR 2024; 10(12): 257-261DOI: https://dx.doi.org/10.22271/allresearch.2024.v10.i12d.12240
- Khairul Islam. "The Impact of Core Strengthening on Balance in a Multiple Sclerosis

- Patient", Reliability of four scales on balance disorders in persons with multiple sclerosis. Movement Disorders, 21(11), 1656–1662. https://doi.org/10.1002/mds.21159
- Khairul Islam. "The Efficacy of Blood Flow Restriction Training for Grip Strength and Disability in Lateral Epicondylitis. American Journal of Sports Medicine, 39(6), 1200-1208. https://doi.org/10.1177/0363546510397173.
- Khairul Islam, Raki Biswas. "Impact of Microcurrent Therapy on Pain and Function in De Quervain's Disease: A Case Study. The Journal of Hand Surgery, 45(2), 134-141. https://doi.org/10.1016/j.jhsa.2020.05.002.
- Khairul Islam. "Case Study on the Effectiveness of Interrupted Galvanic Stimulation in Brachial Amyotrophy. Medicine and Science in Sports and Exercise, 43(1), 115–123. https://doi.org/10.1249/MSS.0b013e3181e9bf16.
- Khairul Islam. "The Effectiveness of Matrix Rhythm Therapy in Alleviating
- Low Back Pain and Improving Functional Mobility in a Patient with Chronic Low Back Pain: A Case Study. Archives of Internal Medicine, 171(22), 2019-2026.https://doi.org/10.1001/archinternmed.2011.524

### Conferences, Workshops, Seminars organized:

- International Conference on Healthcare Researched and Development (ICHRD, 2025) on 4th-5th February, 2025.
- The Physiotherapy Department organizes certificate course (8 credits) "Hands on Workshop on Electro Physics" with the collaboration of Meditech India for providing knowledge about various electrotherapy equipment and its uses in different condition wise.
- Department of Physiotherapy with EIA Medica System collaborately organizes certificate course (8 credits) "Hands on Clinical Workshop on Multimodal Electrotherapeutic Intervention" to provide information about advancement of Electrophysical agents related with treatment in various conditions.
- Skill enhancement course for BPT2024 Batch i.e.
  - 'Role of Entrepreneurship in Healthcare' by Dr. Aurodeep Dasgupta (PT) on 06.08.2024 'Importance of Physiotherapy Profession as a Healthcare Provider' by Dr. Koushik Guha (PT) on 19.07.2024
- International Conference on Healthcare Researches and Technologies (ICHRT) on 25<sup>th</sup> -26<sup>th</sup> Sept, 2024.
- International Conference on Global Healthcon 2024 on 20<sup>th</sup>-21<sup>st</sup> June, 2024.

# DEPARTMENT OF MEDICAL LABORATORY TECHNOLOGY & MEDICAL RADIOLOGY & IMAGING TECHNOLOGY

Swami Vivekananda University is among the best medical laboratory technology colleges, and its BSc Medical Laboratory Technology Course is designed to equip students with the skills required to contribute effectively to the healthcare sector. The medical laboratory technician course emphasizes laboratory procedures, diagnostic techniques, and analytical skills necessary for accurate medical testing and research. The curriculum includes subjects such as Clinical Microbiology, Pathology, Biochemistry, Hematology, Immunology, Medical Genetics, and Clinical Instrumentation. Students gain hands-on experience through clinical rotations and laboratory internships, which provide exposure to the real-world demands and challenges of the profession. The laboratory technician course curriculum is regularly reviewed to incorporate the latest advancements in medical laboratory technology, ensuring that students remain up-to-date with industry practices. Upon completion of the Medical Laboratory Technology program, individuals have the option to pursue roles like R&D Lab Technicians, medical laboratory technologists, Technical Executives, among others. Graduates of this course can explore employment prospects in Private Hospitals, Academic Institutions, Colleges, Pathology Labs, Medical Content Writing, and similar fields.

The Undergraduate program offered by the Department of Medical Laboratory Technology is a 3.5-year course divided into seven semesters that strives to produce graduates with abilities, qualities and competencies that ensure success in the field of laboratory medicine as a medical laboratory technician. The course also promises to provide theoretical knowledge and practical skills which allow them to conduct up to date laboratory tests, interpret generated laboratory results and understand their relationship to the diagnosis of disease. Upon finishing the BMLT program, students gain the proficiency to conduct diagnostic tests on patients, thereby assisting in the treatment of various illnesses. Upon successful completion of BMLT, individuals have the opportunity to apply for positions in diverse settings such as hospitals, minor emergency centers, private laboratories, blood banks, or clinics. By pursuing further education and gaining work experience, a technician can advance to the role of a technologist. Additionally, BMLT graduates can opt to pursue a master's degree, unlocking new and exciting career paths for them. Finally, to create opportunities for students from economically backward backgrounds to gain a foothold in the healthcare industry.

#### **COURSES OFFERED**

B.Sc. in Medical Laboratory Technology

# **FACULTY DETAILS**

Name of the Teacher	Specialization	
Dr. Oly Banerjee	Endocrine & Reproductive physiology and Environmental Toxicology	
Dr. Rajen Dey	Immunology and Microbiology, Basic Neuroimmunology	
Mr. Manojit Bysack	Immunology and Microbiology	
Dr. Priya Nandy	Medical Microbiology	
Dr. Tamoghni Manna	Sports and Exercise Physiology	
Dr. Titlee Majumder	Hematology	
Dr. Koumi Dutta	Medical Microbiology	
Dr. Ruchira Mukherjee	Endocrine & Reproductive physiology and Environmental Toxicology	
Dr. Rubia Mondal	Sports and Exercise Physiology	
Ms. Suvarthi Basu	Immunology and Microbiology	
Mr Abhinaba Gupta	Basic Neuroimmunology	
Dr. Puja Roy	Endocrine & Reproductive Physiology, and Stress Physiology.	
Mr. Subhranil Mukherjee	Radiographic Diagnostics	
Mr. Amit Sharma	Radiography	
Mr. Soumen Sar	Mammography Technologist	

## EXTERNAL MEMBERS OF THE BOARD OF STUDIES

DR. BITHIN KUMAR MAJI	ASSOCIATE PROFESSOR, DEPARTMENT OF PHYSOIOLOGY (UG & PG) SERAMPORE COLLEGE
DR. SANDIP MUKHERJEE	ASSOCIATE PROFESSOR, DEPARTMENT OF PHYSOIOLOGY (UG & PG) SERAMPORE COLLEGE
DR. ALAK KUMAR SYAMAL	PROFESSOR, DEPARTMENT OF PHYSOIOLOGY (UG & PG), HOOGHLY MOHSIN COLLEGE

# **Journal Articles**

- 1. Bhattacharya, K., Dey, R., Sen, D., et al. (2024). Polycystic ovary syndrome and its management: In view of oxidative stress. *Biomol Concepts*. [SCOPUS indexed]
- Bandyopadhyay, U., Sen, D., Ahuja, D., Mahapatra, S. P., Biswas, D., Maiti, R., Chakraborty, S., Hazra, A., Parua, S., Basak, A. K., Das, A., Paul, N., Purkait, M. P., Syamal, A. K., Dey, R., Bhattacharya, K., Adhikary, K., Bhattacharjee, A., et al. (2024). Interplay of calcium, vitamin D, and parathormone in the milieu of infections and immunity: Reassessed in the context of COVID-19. *J Steroid Biochem Mol Biol*. [SCOPUS indexed]
- 3. Paul, S., Patra, S., Mondal, A., Adhikari, G. S., Ghosh, P., Bysack, M., & Dey, R. (2024). The role of microglia in Zika virus pathogenesis: Possible diagnostic and therapeutic strategies. *The Microbe*. [SCOPUS indexed]
- 4. Bishayi, B., Dey, R., Ghosh, R., & Kanwar, M. (2024). Simultaneous blockade of TLR4 and TNFR1 attenuates TLR2 sensitivity in LPS-stimulated macrophages through TNFR2-mediated pathway. *Indian Journal of Physiology and Allied Sciences*. [UGC Care indexed]
- 5. Dey, R. (2024). Covid-19 induced neuroinflammation. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- Paul, S., Patra, S., Mondal, A., Adhikari, G. S., Ghosh, P., Bysack, M., & Dey, R. (2024). Pathogenesis and consequences of Zika virus infection. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- 7. Dey, R., & Bysack, M. (2024). Ascorbic acid: Therapeutic implications in neurodegenerative diseases. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- 8. Bysack, M., & Dey, R. (2024). Abrogation of Gram negative bacteria induced inflammation. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- 9. Sengupta, A., Ganguly, P., Patra, P., Ballav, A., Ash, B., Das, S., Dey, R., & Bysack, M. (2024). A systematic review on consequential interventions of

- Mucuna pruriens in male infertility. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- 10. Bera, R., Majumder Modak, T., & Dey, R. (2024). Effect of selenium in altering hypertension within Indian population: A review. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- 11. Ballav, A., & Dey, R. (2024). Staphylococcal brain abscesses: A review. *The Bioscan*. [WOS & UGC Care indexed]
- 12. Bhaumik, S., & Dey, R. (2024). Human papillomavirus and pathogenesis of cervical cancer. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 13. Ganguly, P., & Dey, R. (2024). Therapeutics and vaccination strategies against Staphylococcus aureus. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 14. Chatterjee, A., Dey, R., & Bysack, M. (2024). Role of diet in type II diabetes mellitus: A comprehensive review. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 15. Chatterjee, A., Dey, R., & Bysack, M. (2024). A thorough review of liver cirrhosis: Epidemiology, causes, etiology, pathophysiology, diagnosis, and treatment management. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 16. Patra, P., & Dey, R. (2024). Candida albicans infection: Virulence factors and pathogenesis. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 17. Sengupta, A., & Dey, R. (2024). Antimicrobial agents and techniques used in modern microbiology. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 18. Jana, S., Dey, R., & Bysack, M. (2024). Evaluation of cardiovascular risks through the assessment of cholesterol level. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 19. Das, S., Dey, R., & Bysack, M. (2024). Contribution of liver enzymes in diagnosing hepatic diseases: A review. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 20. Banerjee, O., Paul, T., Singh, S., Maji, B. K., & Mukherjee, S. (2024). Individual and combined antagonism of aryl hydrocarbon receptor (AhR) and estrogen receptors (ERs) offers distinct level of protection against Bisphenol A (BPA)-induced pancreatic islet cell toxicity in mice. *Naunyn-Schmiedeberg's Arch Pharmacol*. [SCOPUS indexed]

- 21. Banerjee, O., Singh, S., Paul, T., Maji, B. K., & Mukherjee, S. (2024). Centella asiatica mitigates the detrimental effects of Bisphenol-A (BPA) on pancreatic islets. *Sci Rep.* [SCOPUS indexed]
- 22. Banerjee, O. (2024). Effect of folic acid and vitamin B12 on nicotine mediated ovarian dysfunction. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 23. Banerjee, O. (2024). Assessment of oral mucosal epithelium in type 2 diabetic patients using exfoliative cytology: A preliminary study. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 24. Banerjee, O. (2024). Bisphenol A a major concern for ovarian function: Protective role of black tea extract. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 25. Banerjee, O. (2024). Catalase deficiency worsens toxic effects of Bisphenol A (BPA) on ovarian steroidogenesis. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 26. Banerjee, O., Das, U., Paul, T., Singh, S., & Mukherjee, S. (2024). Prevalence of lean diabetes in West Bengal. *Educational Administration: Theory and Practice*. [SCOPUS indexed]
- 27. Paul, T., Banerjee, O., Singh, S., Das, S., Das, U., & Mukherjee, S. (2024). Assessment of gonadotropins level and their ratio in gallstone patients in Kolkata: A cross-sectional study. *Educational Administration: Theory and Practice*. [SCOPUS indexed]
- 28. Banerjee, O. (2024). Advances in circadian rhythm research: Unraveling the molecular mechanisms and health implications. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 29. Banerjee, O. (2024). Hypothalamic inflammation: A central player in the pathogenesis of diabetes mellitus. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 30. Banerjee, O. (2024). The role of the immune system in aging: Mechanisms and implications for health. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 31. Banerjee, O. (2024). The gut-brain axis: A gateway to understanding health and disease. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 32. Samanta, A., Taladhi, R., Mondal, P., Tanbir, S. G., Rahaman, M., Fadikar, S., & Bysack, M. (2024). Review: Beneficial effect of bark extract of *Terminalia arjuna* on human heart. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]

- 33. Bysack, M., Sengupta, A., Ash, B., Patra, P., Ballav, A., Das, S., & Ganguly, P. (2024). A review: Suppressed activity of respiratory system after COVID-19. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- 34. Bera, R. (2024). Procalcitonin, the most reliable biomarker for early diagnosis of bacterial septicaemia. *Journal of Advanced Zoology*. [WOS & UGC Care indexed]
- 35. Bera, R. (2024). Iron deficiency anaemia in active pulmonary tuberculosis patients: Understanding the interplay and implications for management. *The Bioscan*. [WOS & UGC Care indexed]
- 36. Patar, R., & Bera, R. (2024). Navigating nosocomial infection in ICU patients of all age: A review of epidemiology, pathophysiology, diagnostic approaches & prevention strategies. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 37. Ojha, S., & Bera, R. (2024). Understanding the relationship between diabetes mellitus & cardiovascular disease: Pathophysiology and prevention strategies. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 38. Garai, S., & Bera, R. (2024). Exploring the interplay between candidiasis and diabetes mellitus: Risk factors, pathogenesis and management. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 39. Bera, R. (2024). Exploring the pathogenesis of fungal infection in the gastrointestinal tract: Emerging insights and diagnostic challenges. *Int. J. Biol. Sci.* [WOS & UGC Care indexed]
- 40. Bera, R. (2025). Dynamic haematological adaptation: Exploring the physiological shifts during pregnancy. *Int. J. Appl. Res.* [WOS & UGC Care indexed]
- 41. Dutta, S., & Nandy, P. (2025). The role of BMI in predicting body fat percentage and trunk lean mass: A linear approach. *Int. J. Appl. Res.* [WOS & UGC Care indexed]

#### **Book Chapters**

- 1. Sengupta, A., & Dey, R. (2024). Brain aging: A gradual change in the physical and cognitive health. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]
- 2. Patra, P., & Dey, R. (2024). Pathogenesis and consequences of C. neoformans infection: A review. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]
- 3. Samanta, A., & Bysack, M. (2024). A review on prevalence of hepatitis C among pregnant women. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]
- 4. Das, S., & Bysack, M. (2024). Dengue Pathogenesis and diagnostic approaches: A review. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]
- 5. Banerjee, O. (2024). Aloe vera: Bridging traditional with modern science in phytochemistry and pharmacology. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]
- 6. Banerjee, O. (2024). Unraveling the impact: Endocrine disruption and metabolic health. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]
- 7. Bera, R. (2024). Consequences the vital connection: Exploring the role of sleep in metabolic health. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]
- 8. Bera, R. (2024). Unraveling the gastro-intestinal ecology on obesity and diabetes mellitus: A comprehensive review. In Archive of Human Health and Wellbeing (pp. xx–xx). [ISBN: 978-93-6135-299-7]

- 9. Dey, R. (2024). Herpesviridae family: Structure, classification and pathogenesis. In Recent trends in Hematology and Infectious Diseases (pp. xx–xx). [ISBN: 978-93-6076-130-1]
- 10. Bysack, M. (2024). An in-depth exploration of the potential threat posed by Staphylococcus aureus. In Recent trends in Hematology and Infectious Diseases (pp. xx–xx). [ISBN: 978-93-6076-130-1]
- 11. Banerjee, O. (2024). Approaches to minimize cross infections within health care environment. In Recent trends in Hematology and Infectious Diseases (pp. xx–xx). [ISBN: 978-93-6076-130-1]
- 12. Bera, R. (2024). An in-depth analysis of the consequences of zoonotic disease. In Recent trends in Hematology and Infectious Diseases (pp. xx–xx). [ISBN: 978-93-6076-130-1]
- 13. Dey, R. (2024). Acute myeloid leukemia: Types and treatment strategies. In Regulatory haematoindices (pp. xx–xx). [ISBN: 978-93-340-7137-5]
- 14. Bysack, M. (2024). An in-depth investigation of risk factors associated with sepsis and the potential treatment modality. In Regulatory haematoindices (pp. xx–xx). [ISBN: 978-93-340-7137-5]
- 15. Banerjee, O. (2024). A comprehensive examination of anemia: Classifications, origins, indications, and therapeutic approaches. In Regulatory haematoindices (pp. xx–xx). [ISBN: 978-93-340-7137-5]
- 16. Bera, R. (2024). An in-depth analysis of thalassemia: Causes, diagnosis & management. In Regulatory haematoindices (pp. xx–xx). [ISBN: 978-93-340-7137-5]

- 17. Dey, R. (2025). Inflammatory perspective of disease: From molecules to organs. In Regulatory haematoindices (pp. xx–xx). [ISBN: 978-93-342-1790-2]
- 18. Majumder, T. (2025). Pathology: An introduction & overview. In Pathoinsights: Dissecting Disease Mechanisms (pp. xx–xx). [ISBN: 978-93-342-1790-2]
- 19. Bysack, M. (2025). An in-depth exploration of cellular injury, the associated responses, and mechanisms of cellular adaptation. In Pathoinsights: Dissecting Disease Mechanisms (pp. xx–xx). [ISBN: 978-93-342-1790-2]
- 20. Banerjee, O. (2025). When defense turns destructive: The science of hypersensitivity. In Pathoinsights: Dissecting Disease Mechanisms (pp. xx–xx). [ISBN: 978-93-342-1790-2]
- 21. Bera, R. (2025). Understanding hemorrhage A life threatening emergency: Mechanisms, management and mitigation strategies. In Pathoinsights: Dissecting Disease Mechanisms (pp. xx–xx). [ISBN: 978-93-342-1790-2]
- 22. Bysack, M., & Dey, R. (2025). Urinary tract infections encountered health hazards during pregnancy: Review. In Frontiers in Allied Health Research (pp. xx–xx). [ISBN: 978-93-7143-229-0]
- 23. Dey, R., & Bysack, M. (2025). Etiologic survey of aseptic noninfectious meningitis. In Frontiers in Allied Health Research (pp. xx–xx). [ISBN: 978-93-7143-229-0]
- 24. Dey, R., & Bysack, M. (2025). Monkeypox virus: History, epidemiology and pathophysiology. In Clinical and Research Insights in Allied Health Sciences (pp. xx–xx). [ISBN: 978-81-950003-8-8]

25. Bysack, M., & Dey, R. (2025). A comprehensive review on health benefits and removal of hazardous effects via using Stevia rebaudiana over sweeteners. In Clinical and Research Insights in Allied Health Sciences (pp. xx–xx). [ISBN: 978-81-950003-8-8]

## **Details of Patents**

Department	Patent/Copyright	Name of Faculty	Title	Date of Filing	Date of Publish	Date of Grant
MLT	PATENT	Dr. Titlee Majumder	Interactive technology driven low cost virtual learning device NOODLE for equity to address digital divide	23.02.23	10.03.23	NA
MLT	PATENT	Dr. Rajen Dey	BED FOR PATIENTS SUFFERING FROM URINARY INCONTINENCE	29.11.23	11.10.24	NA
MLT	PATENT	Manojit Bysack, Dr. Rajen Dey	System for automatic blood support in an operation theatre	25.02.25	21.03.25	NA
MLT	PATENT	Dr. Oly Banerjee	Method for producing a fermented beverage infused with medicinal plant extracts and pumpkin seed extract	12/03/2025	28.03.2025	NA

# Workshops/Seminar/Conference organized

Sl. No.	Programme Type	Programme Date	Additional Information if any	
1.	Webinar	19.02.2022	Diabetic Management in Covid-19	
2	Webinar	22.04.2022	Patients Stress Awareness Month	
2		23.04.2022		
3	Seminar	11.11.2022	Physiology Friday	
4	Blood Donation	21.11.2022	Organised by Lions Blood Bank in	
	Camp & Free		collaboration with Swami	
	Blood Sugar		Vivekananda University	
	Check Up Camp			
5	Seminar	20.04.2023	Stress Awareness Month	
6	Seminar	9.11.2023	Physiology Friday	
7	International	28.09.2023-29.09.2023	Global Healthcon	
	Conference			
8.	International	22.02.2024-24.02.2024	International Seminar- Global	
	Conference		Healthcon 2.0	
9	Seminar	13.03.2024	Celebration of National No	
			Smoking Day	
10	International 20.06.2024-21.06.2024		International Seminar- Global	
	Conference		Healthcon 3.0	
11	International	25.09.2024-26.09.2024	International Seminar on Healthcare	
	Conference		Researches & Technology	
12	International 04.02.2025-05.02.2025		International Seminar on Healthcare	
	Conference		Researches & Development	

## **Department of Multimedia and Animation**

#### **Brief Details about the Department**

The Department of Multimedia and Animation at Swami Vivekananda University shapes tomorrow's creative leaders for the global media and entertainment industry through its four-year B.Sc. Honours program. Blending creativity with cutting-edge technology, the program builds a strong artistic foundation alongside modern digital skills, enabling students to explore every stage of visual creation—from sketch to screen. Covering graphic design, 2D and 3D animation, VFX, film editing, sound design, and UI/UX, the curriculum emphasizes design thinking, storytelling, and technical mastery. Hands-on projects, workshops, and mentorship from industry experts ensure practical exposure, while international-quality portfolios help graduates stand out globally. With career opportunities in animation studios, branding agencies, film and television, as well as gaming, digital media, and interactive design, the department fosters innovation and experimentation, inspiring students to push creative and technical boundaries in step with the fast-evolving global industry. Here, imagination transforms into impactful creative expression.

#### **Courses Offered:**

B.Sc.(H) in Multimedia and Animation

M.Sc. in Multimedia and Animation

## Faculty Details

Sl. No.	Name of the Faculty Members (With Google Scholar ID)	Research Area
1.	Mr. Goutam Banerjee	Video editing and Vfx compositing. Artificial Intelligence and Machine Learning in Animation, Generative AI for storyboarding and visual development, Interactive Media and Gamified Animation.
2.	Mr. Souvik Chakraborty	Design History & Cultural Studies; Typography & Visual Communication; Technology & New Media in Design; Pedagogy & Design Education; Social Impact & Ethics in Design; Industry & Professional Practice.
3.	Mr. Tamash Saha	Motion Graphics & VFX.
4.	Mr. Subhojit Nath	Creative Design.
5.	Mr. Jayanta Roy	2D Animation.
6.	Dr. Parshat Mondal	Storyboard & Drawing.
7.	Mr. Sujay Bit	3D Visualisation.
8.	Mr. Mikail Aziz	3D animation.
9.	Mr. Aminur Rahaman	Cinematography and Editing

10.	Mr. Anoop Guha	Photography and Photo Editing

#### External Members on the Board of Studies:

Dr. Buroshiva Dasgupta	Professor, Adviser, School of Mass Communication, Fine Arts, Design , Performing Arts, SNU
Mr. Krishnendu Das	Assistant Professor, department of Journalism and Mass communication, SNU
Mr. Anirban Pal	Assistant Professor, Department of Multimedia, St Xavier's College, Kolkata

# Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers

1. Innovations Across Disciplines: Advancements in Engineering, Technology, and Sustainability Paper Title: The Use of Storyboarding to Visualize a Narrative

Authors: Subhojit Nath & Tamash Saha

This paper explores how storyboarding continues to be a fundamental tool in visual storytelling across media platforms. The authors analyze how visual sequences not only guide production but also enhance creativity, communication, and audience engagement. Their work underscores the importance of previsualization in both film and digital media projects.

2. Character Concept in Video Games Author: Sujoy Bit

This research emphasizes the artistic and psychological depth of character design in gaming. By combining narrative structures with visual creativity, the paper demonstrates how characters act as the central pillars of gameplay, player engagement, and immersive experience. The study also highlights the role of concept art in shaping the identity and emotional resonance of video game characters.

3. Engineering For Sustainability: Research, Innovation, and Impact

Paper Title: Artificial Intelligence in 3D Animation: Implementing Autodesk Maya Innovations Author: Goutam Banerjee

Focusing on sustainable technological practices, this research investigates how Al-driven tools within Autodesk Maya are revolutionizing the field of 3D animation. The paper elaborates on how automation, machine learning, and intelligent rendering workflows can enhance creativity while reducing resource consumption in animation pipelines.

4. Advances in Sustainable Technologies: Emerging Trends and Applications Paper Title: 3D Modeling in Maya

Author: Goutam Banerjee

This paper highlights the growing trends in 3D modeling with Autodesk Maya, particularly emphasizing sustainable and efficient design techniques. The author discusses modelling methodologies, topology management, and resource optimization strategies that contribute to innovation in both educational and professional animation environments.

5. Innovative Solutions and Sustainable Development: Bridging Technology and Science for a Greener Future

Paper Title: 3D Lighting in 3D Animation: Techniques and Applications Author: Goutam Banerjee Lighting is one of the most critical aspects of 3D animation. This paper investigates advanced lighting techniques and their application to create realistic, emotionally powerful visual experiences. The author also draws connections between energy-efficient lighting methods and sustainable digital production practices.

6. Fusion of Minds: Multidisciplinary Research in Emerging Technologies Paper Titles:

3D Lighting in 3D Animation: Techniques and Applications New Trends of Video Editing Visual Communication: A Comprehensive Examination Author: Goutam Banerjee These contributions explore a wide spectrum of digital media practices. The lighting paper revisits the importance of illumination in storytelling, while the video editing research outlines the evolution of editing styles and techniques in modern production. The visual communication study provides a holistic understanding of how design, typography, and media aesthetics shape effective communication in the digital age.

7. Multidisciplinary Insights in Modern Engineering

Paper Title: Visual Communication: A Comprehensive Examination Author: Goutam Banerjee This paper further expands on the significance of visual communication as an interdisciplinary field, linking art, design, and technology. The research demonstrates how multimedia education can foster stronger connections between creators and audiences.

8. Digital Design and Engineering in the Age of Al Papers: Color in Games – Author: Sujoy Bit

The Future of Visual Effects Technology – Author: Subhojit Nath

The Quest for the Lost Dimension in VFX: From 2D to 3D - Author: Goutam Banerjee

#### Workshops organized

Workshop: Chroma and 3d integration, Date: 13th January, 2025

Workshop: Sound an unexplored territory, Date: 18th January, 2025

Workshop: Fashion photography, Date: 29th January, 2025

Workshop: Working with AI, Date: 12th February, 2025

Workshop: Fundamentals of Cinematography with Sony, Date: 18th - 19th February, 2025

Photowalk 2025 with FUJIFILM, Date: 24th March

Workshop: Learn UI-UX Designing, Date: 25th March

Film Fest, Date: 8th April to 12th April 2025

## Department of Food and Nutrition Swami Vivekananda University

#### 1. Brief details of the Department:

The Department of Food and Nutrition at Swami Vivekananda University, Kolkata, functions under the School of Allied Health Sciences and is dedicated to developing skilled professionals in the fields of nutrition, dietetics, and food science. The department offers both undergraduate (B.Sc. in Clinical Nutrition and Dietetics) and postgraduate (M.Sc. in Food and Nutrition) programs designed to blend theoretical knowledge with practical experience. Students receive comprehensive training through laboratory work, clinical exposure, community surveys, industrial visits, and internships that help them connect classroom learning with real-world applications. The department also offers a Ph.D course in Food and Nutrition.

The curriculum encompasses a broad range of topics, including clinical and therapeutic nutrition, public health nutrition, food microbiology, food safety, functional food development, and the biochemical aspects of nutrition. The department also emphasizes research and innovation, encouraging students to participate in projects related to metabolic disorders, food product development, and the role of diet in disease prevention.

With a team of experienced and research-oriented faculty members, the department provides mentorship and guidance for higher studies, research, and professional examinations. It also organizes seminars, workshops, and awareness programs to enhance students' professional skills and social responsibility. The overall mission of the Department of Food and Nutrition at SVU is to create competent, compassionate, and industry-ready nutrition professionals who can contribute effectively to the healthcare, food, and research sectors, while promoting a healthier society through evidence-based nutrition practices.

#### 2. Courses offered

**Graduate Courses:** B.Sc. in Clinical Nutrition and Dietetics

Postgraduate Courses: M.Sc. in Food and Nutrition

**Doctoral Research:** Ph.D in Food and Nutrition

Total Scholar: 49 [ (2021: 5), (2022: 6), (2023:27), (2024:11)]

#### 3. Faculty Details

Name of the Teacher	Specialization
Dr. Manisha Maity	Microbial biotechnology, Enzyme Technology, Waste valorization
Ms. Paromita Mukherjee	Functional Food Product Development
Dr. Souvik Tewari	Probiotics & Functional Food Product Development
Dr. Rupali Dhara Mitra	Nutraceuticals, Food product development, Food product analysis, Chromatography, Biostatistics, Structured lipid, Biopolymer

Ms. Shreyasi Das	Food Product Development
Dr. Jagannath Ghosh	Ergonomics, Community Health and Nutritional Survey
Dr. Moumita Dev	Food product development, Technology of spice, Product analysis
Dr. Moumita Das	Nutritional Biochemistry, Bioactive compound and metabolic disorder
Ms. Megha Roy	Community survey and functional food product development
Ms. Ishani Ganguly	Technology of spice, Product analysis
Ms. Arpita Benerjee	Food Product Development
Dr. Saheli Ghosal	Nutraceuticals, Food product development, Food product analysis, Chromatography, Biostatistics, Structured lipid, Biopolymer
Dr. Nabanita Ghosh	Functional Food Product Development
Dr. Parul Thapar	Food Microbiology, Gut Microbiome, Fermentation Technology, Food Safety and Quality Control, Bioinformatics
Ms. Anapurba Kanjilal	Bioactive compound and metabolic disorder

#### 4. External Members of the Board of Studies:

Sl No.	Name	Designation with Affiliation
1	Prof. Bidyut Bandhopadhyay	Principal, Oriental Institute of Science and
		Technology, Dewandigh, Burdwan, West
		Bengal
2	Dr. Anindita Ray Chakraborty	Assistant, Maharani Kasiswari College, Calcutta
		University, West Bengal
3	Prof. Pubali Dhar	Professor, Department of Home Science,
		Calcutta University, West Bengal

#### 5. Publication details

#### **Journal Publication:**

- 1. Dhara, P., Mukherjee, P., Tewari, S., & Parida, S. (2025). Formulation and nutritional characterization of newly developed antioxidant enriched coconut milk by using almond skins and turmeric powder. *International Journal of Agriculture and Nutrition*, 7(7), 24–29. https://doi.org/10.33545/26646064.2025.v7.i7a.236
- Parida, S., Roy, D., Mathew, S. M., & Tewari, S. (2025). Formulation and nutritional characterization of newly developed antioxidant-enriched fortified tea. International Journal of Advanced Biochemistry Research, 9(7), 671–676. <a href="https://doi.org/10.33545/26174693.2025.v9.i7i.4817">https://doi.org/10.33545/26174693.2025.v9.i7i.4817</a>
- 3. Chowdhury, M., **Maity, M.** (2025). Extraction of valuable pigments from vegetable waste, pumpkin peel. Journal of Current Research in Food Science, *6*(1), 5-12, <a href="https://doi.org/10.22271/foodsci.2025.v6.i1a.176">https://doi.org/10.22271/foodsci.2025.v6.i1a.176</a>
- Banka, R & Maity, M. (2025). Redefining food with Tulsi leaves: A review on novel food product development.
   International Journal Of Applied Research. 11(2), 98-100.

   <a href="https://doi.org/10.22271//allresearch.2025.v11.i2b.12342">https://doi.org/10.22271//allresearch.2025.v11.i2b.12342</a>
- Prakash, N & Maity, M. (2025). Amaranth, finger millet and L-carnitine: A review on their potential role in management and prevention of various lifestyle diseases. International Journal of Multidisciplinary Trends. 7 (2), 19-23. <a href="https://doi.org/10.22271/multi.2025.v7.i2a.590">10.22271/multi.2025.v7.i2a.590</a>
- 6. Biswas, R., Roy, D., Janakiraman, M., Parida, S., & Tewari, S. (2025). Development of non-dairy probiotic beverages from legumes. *International Journal of Agriculture and Food Science*, 7(6), 253–258. <a href="https://doi.org/10.33545/2664844X.2025.v7.i6d.462">https://doi.org/10.33545/2664844X.2025.v7.i6d.462</a>
- Tewari, S., Bhardwaj, S. K., Bhowmik, M., Ganguly, A., & Parida, S. (2025). Prevalence of dyslipidemia and hypertension among adults: Insight from North 24th Parganas district, West Bengal, India. *International Journal of Cardiology Research*, 7(1), 1–3. <a href="https://doi.org/10.33545/26634104.2025.v7.i1a.56">https://doi.org/10.33545/26634104.2025.v7.i1a.56</a>
- 8. Tewari, S., Mishra, S., Nakhale, S., & Parida, S. (2025). A comprehensive review of the iarvicidal effects of medicinal plant extracts on *Anopheles subpictus* and *Culex*

- tritaeniorhynchus. International Journal of Mosquito Research, 12(3), 59–64. https://doi.org/10.22271/23487941.202
- 9. Kundu, D., Sultana, J., Majumdar, S., Tewari, S., & Majumdar, A. (2024). Application of therapeutic nutrition for controlling gout: An overview. *International Journal of Agriculture and Nutrition*, 6(2), 110–112. https://doi.org/10.33545/26646064.2024.v6.i2b.192
- Mishra, S. Sarkar, D. Roy, P., Roy, P., Shriram, N., Tewari, S. and Farhana, K. (2024).
   Proximate analysis of dietary fibre-enriched pasta. Int. J. Adv. Biochem. Res., 8(12S):94-96.
   DOI: 10.33545/26174693.2024.v8.i12Sb.3075
- 11. Mukherjee, P., Tewari, S., & Chakravarti, A. R. Nakhale, S., (2024). "Formulation and Sensory Evaluation of Non-Dairy Synbiotic Chocolates Enriched with Almond Milk, Oats Powder and Probiotic Microorganism (Streptococcus thermophilus BURD PB 8)". Acta Scientific Nutritional Health 8 (6): 02-10.
- 12. Bedi, S., Tewari, S., Parida, S., Bandhopadhyay, B., Pramanik, P., & Chatterjee, P. (2024). Formulation and sensory evaluation of chapati fortified with different vegetable waste powders. *International Journal of Research in Agronomy*, 7(4S), 142–147. https://doi.org/10.33545/2618060X.2024.v7.i4Sb.568
- 13. Mukherjee, P., Tewari, S., & Jombo, T. Z. (2024). A review on bioactive compounds present in garden beet and beetroot powder and their potential prebiotic properties. *International Journal of Research in Agronomy*, 7(3), 178–180. https://doi.org/10.33545/2618060X.2024.v7.i3c.407
- 14. Gupta, S., Das, P., Neogi, B., Roy, A., Sur, M., Maity, M., & Majumdar, T. (2024). Technology Enhanced Learning driven music inspired LEARN with NOODLE model for inclusive education. *Journal of Engineering Education Transformations*, 156-164.
- 15. Bhattacharjee, B., Adhikary, A. S., Nag, S. M., Khaitan, J., Bhowmick, S., Maity, M.,& Bhattacharjee, A. (2024). A cross-sectional observational study investigating the association between body composition, body circumferences, visceral fat, and inflammatory markers in hospitalized chronic obstructive pulmonary disease patients of Kolkata. *Clinical Nutrition ESPEN*, 63, 1096.
- Bhattacharjee, B., Adhikary, A. S., Nag, S. M., Roy, A., Khaitan, J., Talukdar, A., & Saha, S. (2024). Exploring the relationship between handgrip strength and cardiovascular risk factors in the elderly population of Kolkata: A hospital-based cross-sectional observational study. *Clinical Nutrition ESPEN*, 63, 1144-1145.
- 17. Mukherjee, P., Tewari, S., & Chakravarti, A. R. (2024). Biochemical parameters and potential health benefits of functional probiotic chocolates: A systematic review. *International Journal of Advanced Biochemistry Research*, 8(3), 218–223. https://doi.org/10.33545/26174693.2024.v8.i3c.716

- 18. Kundu, D., Sultana, J., Majumdar, S., Tewari, S. and Majumdar, A. (2024). Application of therapeutic nutrition for controlling gout: An overview. Int. J. Agric. Nutr., 6(2):110-112. DOI: 10.33545/26646064.2024.v6.i2b.192
- 19. Chatterjee, P., Tewari, S. (2024). Sesame seeds as functional foods: An overview. Int J Hortic Food Sci, 6(2):57-59. DOI: 10.33545/26631067.2024.v6.i2a.232
- Das, P., Paria, D., Tewari, S. and Pramanik, P. (2024). Potential health benefits of traditional Mahua Wine. Int. J. Pharmacol. Pharm. Res., 6(2):27-29. DOI: 10.33545/26647184.2024.v6.i2a.40
- 21. **Dev, M.**, Bhattacharyya, D. K., & Ghosh, M. (2024). Effect of different roasting methods on clove bud extracted oil. Food and Humanity, 2, 100224. https://doi.org/10.1016/j.foohum.2023.100224
- 22. **Dev, M**., Bhattacharyya, D. K., & Ghosh, M. (2025). A study to characterize and evaluate the chemical composition and bioactive properties of microwave-roasted cinnamon bark oil. *Food and Humanity*, *4*, 100520. <a href="https://doi.org/10.1016/j.foohum.2025.100520">https://doi.org/10.1016/j.foohum.2025.100520</a>
- 23. **Mukherjee**, **P**., Tewari, S., & Jombo, T. Z.(2024) A review on bioactive compounds presents in garden beet and beetroot powder and their potential prebiotic properties. International Journal of research in agronomy.7(3).178-180.
- 24. **Mukherjee**, **P**., Tewari, S., & Chakravarti, A. R.(2024) Biochemical parameters and potential health benefits of functional probiotic chocolates: A systematic review. International journal of advanced biochemistry research. 8(6). 619-626.
- 25. **Mukherjee**, P., Tewari, S., Chakravarti, A. R., & Nakhale, S. (2024). Formulation and sensory evaluation of non-dairy synbiotic chocolates enriched with almond milk, oats powder and probiotic microorganism (streptococcus thermophilus BURD PB 8). *Acta Scientific NUTRITIONAL HEALTH (ISSN: 2582-1423)*, 8(6).
- 26. **Mukherjee**, **P**., Tewari, S., & Chakravarti, A. R.(2024) Development of novel non-dairy synbiotic chocolates for promoting desirable gut microbiome. International Journal of Advanced Biochemistry Research. 8(6). 619-626.
- 27. Das, T; **Mukherjee**, **P**; & Tewari, S (2025) Effects of catechins on cardiovascular disease: A review. Int. J. Physiol. Health Phys. Educ. 2025;7(1):01-03.
- 28. Saha, J., Rahaman, S. N., Ali, K. M., Ghosal, S., & Kanti, S., **Ghosh, J.** A study on Demographic profile and Economic status of Aged Tribal People in West Bengal, India. *Mukt Shabd Journal*. 2025; XIV(IV): 503-516.
- 29. Paul P and **Ghosh J**. A study on: Prevalence of work-related health hazard among loco pilots of Kolkata, West Bengal, India. *International Journal of Clinical Biology and Biochemistry*. 2025; 7(1): 15-19.
- 30. Das A and **Ghosh J**. Impact of resistant starch on human health: A review. *International Journal of Biology Sciences*. 2025; 7(2): 18-21.
- 31. Ghosh M and **Ghosh J.** Prevalence of occupational injury among auto drivers of north 24 parganas, West Bengal, India. *International Journal of Advanced Academic Studies*. 2025; 7(1): 16-20.

- 32. Tapadar T and **Ghosh J.** Impact of banana pseudostem on reducing blood pressure. Journal of Current Research in Food Science 2025; 6(1): 01-04.
- 33. Tewari S., Bhardwaj SK., Ghosh A., Farhana K and **Ghosh J**. Therapeutic intervention against human metapneumovirus (HMPV) associated symptoms. *Journal of Advances in Microbiology Research*, 2025: 6(1), 01-05.
- 34. Saha J, Rahaman Sk. N, Ghosal S, Roy SK and **Ghosh J.** Malnutrition and Cognitive Impairment Assessment of Elderly Tribal People of Bankura District, West Bengal by using MNA and MMSE Questionnaire. *The Bioscan.* 2024; 19(3): 114-119.
- 35. Bhardwaj, S., Vijayalakshmi, P., Roy P, Ghosh, S., **Roy, M.** (2025). The role of diet in stress management: Applications of therapeutic nutrition. International Journal of physiology, Nutrition and Physical education. 2025, Vol. 10, Issue 1.143-149.
- 36. Mondal, E., & **Das, S** (2024). HARMONISING WELL-BEING: A IN DEPTH REVIEW OF THE IMPACT OF AYURVEDIC DOSHA ON THE CHOICE OF FOOD ANDNUTRITIONAL GUIDANCE. The Bioscan: An International Quarterly Journal of Life Sciences, 19(2):37-40,2024(Supplement) <a href="https://doi.org/10.63001/tbs.2024.v19.i02.S1.pp37-40">https://doi.org/10.63001/tbs.2024.v19.i02.S1.pp37-40</a>
- 37. Das., S., & **Das**, **S.** (2025) Unfolding the culinary chant: A comprehensive analysis of the impact of food advertising and marketing on dietary choices. J Curr Res Food Sci 2025;6(1):28-32. DOI: 10.22271/foodsci.2025.v6.i1a.181
- 38. Mandal, P., & **Das, S.** (2025) Feeding techniques for early infants: Advantages of using fortified human milk compared to preterm formula. Int J Home Sci 2025;11(1):09-12. DOI: 10.22271/23957476.2025.v11.i1a.1752
- 39. Kumari Sulena, A., & **Das, S**. (2025) Understanding worries about food: A comprehensive review of different food fears. Int J Adv Acad Stud 2025;7(1):11-DOI: 10.33545/27068919.2025.v7.i1a.1325
- 40. Das, S., & **Das**, **S**. (2025) Health perks of litchi seed: A systematic review. Int J Hortic Food Sci 2025;7(1):01-05. DOI: 10.33545/26631067.2024.v7.i1a.234
- 41. Mondal, E., & **Das**, **S**. (2025) Benefits of guava leaves: A comprehensive review. Int J Appl Res 2025;11(1):53-56.
- 42. Mondal, E., Guchait, D, **Das, S**. (2025) Plant-based diets and weight management: A comprehensive review of efficacy and mechanisms. Int J Appl Res 2025;11(1):123-127. DOI: 10.22271/allresearch.2025.v11.i1b.12268
- 43. Mandal, P., & **Das, S**. (2025)The morning meal with muesli: Nurturing adolescents' brains: A comprehensive evaluation of the effects of food consumption on <a href="https://doi.org/10.33545/26646188.2025.v7.i1a.78">https://doi.org/10.33545/26646188.2025.v7.i1a.78</a>
- 44. Jadhav, H. B., **Das**, **M**., Das, A., Geetha, V., Choudhary, P., Annapure, U., & Alaskar, K. (2024). Enhancing the functionality of plant-based proteins with the application of ultrasound–A Review. *Measurement: Food*, 100139.
- 45. 2. Jadhav, H. B., Choudhary, P., Deshmukh, N. D., Singh, D. K., Das, M., Das, A., & Nayik,
  G. A. (2024). Advancements in non-thermal technologies for enhanced extraction of functional triacylgiveerois from microalgal biomass: A comprehensive review. Food

- Chemistry: X, 101694.
- 46. 3. Ray, A., Dev, M., & Das, M. (2025). A concise review on current trend of replacing fat in the development of non-dairy cheese analogues. *Food Science and Biotechnology*, *34*(7), 1557-1564.
- 47. 4. Das, M., & Das, A. (2024). A comprehensive review on strategies for replacing saturated fats in bakery products. *Discover Food*, 4(1), 156.
- 48. 5. Dutta K, Ghosal **Das M**. (2025). A concise review on fast food consumption and its health implications. *J Curr Res Food Sci*;6(1):17-21.
- 49. 6. Nath, M., Ramkumar, S., Das, A., & Das, M. (2025). An overview on application of fat-replacers in different dairy products and its health implications. *Discover Food*, *5*(1), 133.
- 50. 7. Ray, A., & Das, M. (2025). Modulatory implications of quinoa in therapeutic management of obesity and metabolic syndrome. *Food Bioscience*, 107305.
- 51. Sengupta, P., Bandhopadhay, K., & Mitra, R D. (2025). Breast cancer and PCOD: Insights into their correlation. International Journal of Pharmaceutical and Clinical Research, 7(1), 22-25. https://doi.org/26647591.2025.v7 i1a.119
- 52. Mukherjee, K., Ghosh, P R., & Mitra, R D. (2025). Millet-based cookies enriched with soy flour. Journal of. Clinicial Biology and Biochemistry, 7(1), 29-31.
- 53. Khatun, F., Mistry, P., Pradhan, S., & **Mitra, R D** (2025). The nutritional breakthrough: B vitamins in gelatinized cucumber for diabetic spread. International Journal of Applied Research, Vol. 11,(2), Part B, 95-97.
- 54. Das, J., Dev, M., & **Mitra, R D** (2025). A comprehensive study on muscle paralysis linked with botulism disease. \*International Journal of Biology Sciences, 7 (1), 75-82.
- 55. Mistry, P., & **Mitra**, **R D** (2025). Applications of shea butter in new food product formulations. International Journal of Home Science, *11*(1), 05-08.
- 56. Mistry, P. & **Mitra**, **R D** (2025). Applications of shea butter in new food product formulations. International Journal of Home Science, *11*(1), 05-08.
- 57. Dutta, S., & **Mitra**, **R D** (2025). Effects of walnut consumption on brain health: A review. Journal of Current Research in Food Science, 6(1), 25-27.
- 58. Banerjee, S., & Mitra, R D (2025). Diabetic jam prepared from beetroot enriched with flaxseed. International Journal of Advanced Academic Studies, 7(1), 01-05.
- 59. Sengupta, P., Bandyopadhyay, K., Mistry, P., & **Mitra, R D** (2024). A Review on Adolescent Obesity and PCOD: Causes, Symptoms and Remedial Measures. Acta Scientific Nutritional Health, 8(10), 69-73.
- 60. Sengupta,P., Bandhopadhay, K., **Mitra, R D** (2024). Metabolic and hormonal pathways connecting polycystic ovarian disease (PCOD) to. Journal of Population Therapeutics and Clinical Pharmacology, *31*(7), 1989.

#### **Book Chapters:**

- Bhattacharyya A. and Tewari, S., (2025). A Review on Nutrition for mental health (Nutritional Psychiatrist), Revolutionary Approach in Food Science, Technology and Processing. The Penprint India, ISBN:978-81-9888004-2-4
- 2. Tewari, S. (2024). The Impact of the Gut-Brain Axis on Mental Health, *Mapping the Mind:*An Exploration of Psychology, 181-188, ISBN: 978-93-5834-551-3, DOI: 10.62778/int.book.433.
- 3. Tewari, S. and Ghosh, J. (2024). The Wonders of Fermented Foods and Their Effects on Well-Being, *Archive of Human Health and Wellbeing*, *123-134*, ISBN: 978-93-6135-299-7. DOI: 10.22271/ed.book.2750.
- 4. Thapar, P., **Dev, M.**, & Kaur, V. (2025). Foundations and Frontiers in Food Science and Nutrition (Microorganisms In Food: Friends and Foes). Paper Trail Publication
- Mondal, K & Dev, M. (2025). Food Technology Revolution: Shaping the Next Generation of Nutrition (Nutritional Aspects and Benefits of Hemp Seeds (*Cannabis sativa L.*) for Women's Health. The Book World.
- 6. Thapar, P., **Dev, M.**, & Menon., K. (2025). Gut Microbiota: Recent Trends towards Improved Nutrition and Health (The gut microbiome and pediatric undernutrition: A comprehensive review of emerging insights). Eliva Press.
- 7. **Dev,M.**, & MondaL.,T (2025).Revolutionay Approaches in Food Science,Technology and Processing.Pen Prints.
- 8. **Dev,M.,** & Thapar.,P (2025). Application of Spice Extract-Iron Bionanocomposites as a
- 9. Medium for Hormonal Regulation in Females. *Bioactive Ingredients for Healthcare industry Volume 2: Advances in Therapeutic Applications*. Springer Nature.
- 10. **Dev,M.,** & Thapar.,P (2025). A Review on Analytical Techniques in Understanding the Bioactivity of Essential Oils. *Bioactive Ingredients for Healthcare industry Volume 1:*Advances in Therapeutic Applications. Springer Nature.
- 11. **Dev,M.,** & Dutta.,A (2024). An Overview of the Impact of Caffeine and Creatine on Sports Performance. Recent Trends and Innovations in Food Science, Food Technology & Nutrition.Akinik Publication.
- 12. **Dev,M.,** & Sen.,S(2024). Applied Clinical Nutrition and Food Science: A Holistic Guide towards Robust Health Nutrition and Dietary Management for Attention Deficit Hyperactivity Disorder (ADHD)-A Comprehensive Review.Bright Sky Publications.
- 13. **Dev,M** (2024)Therapeutic Nutrition: A Comprehensive Guide for Healthy Lifestyl.Fever and Gout: Distinguishing Discomforts. Integrated Publications.

- 14. Kul, A., & Maity, M. (2024) Enrichment of Biscuits with omega-3 fatty acids: A review. Bright Sky Publication. ISBN-978-93-6233-051-2
- 15. Mukherjee, M., & Maity, M. (2024). Insights of beneficial effects of protein bar using plant-based foods: A review. Bright Sky Publication. ISBN-978-93-6233-051-2
- 16. Das, N., & Maity, M. (2024). Isolation of proteins from various plant wastes and their uses in the formulation of food. AkiNik Publication. ISBN-978-93-6135-279-3
- 17. Chowdhury, M, & Maity, M. (2025). Effects of Polyphenols from Fruits on Human Health. Food technology revolution: Shaping the next generation of Nutrition. The Book World. ISBN-978-93-81231
- 18. Khatoon, T., & **Maity**, **M**. (2025) Attributes enhancement of cereals by enriching phytochemicals: a review Revolutionary Approaches in Food Science, Technology and Processing. The Penprint India, ISBN:978-81-9888004-2-4
- 19. **Mukherjee**, **P**, (2024) Nutrition Care and Dietary Approach in Diabetes Mellitus. Therapeutic Nutrition a Comprehensive Guide for Healthy Lifestyle ISBN: 987-935834-1423
- 20. Mondal, S; & Mukherjee, P; (2024) Utilization of Various fruit and Vegetables pomace as effective ingredients. Applied Clinical Nutrition and Food Science. ISBN: 978-9362330-512
- 21. Kotal, S; & Mukherjee, P; (2024) The Alleviating effect of Soy Curd on Lactose Intolerance: A systematic review. Recent Trends and Innovations in Food Science, Food Technology and Nutrition. ISBN: 978-9361352-973
- 22. Maity, S; & **Mukherjee**, **P**; (2025) Application and Food Products Development using Spirulina Plantesis and their Potential Health Impact. Food Technology Revolution: Shaping the next generation of Nutrition. ISBN: 978-9381232-548
- 23. Das A and **Ghosh J.** Prevalence of Health Hazards and Sleep Disorders among the Night Shift Workers of India-A Review. *Food Technology Revolution: Shaping the Next Generation of Nutrition*, 112-118. The Book world 2025. ISBN:978-93-81231-54-8.
- 24. Das J and **Ghosh J.** Prevalence of Occupational Injury among the Horse cart Riders of India-A Review. *Food Technology Revolution: Shaping the Next Generation of Nutrition*, 137-142. The Book world 2025. ISBN:978-93-81231-54-8.
- 25. Tapadar T and **Ghosh J**. A Comprehensive Review on the Impact of Malnutrition on Street People of India, *Revolutionary Approach in Food Science, Technology and Processing*, 89-96. The Penprint India 2025. ISBN:978-81-9888004-2-4.
- 26. Paul P, Ghosh M and **Ghosh J**. Prevalence of Work-Related Health Hazard among Loco Pilots, *Recent Trends and Innovations in Food Science, Food Technology & Nutrition*, 2024: 13-21, ISBN: 978-93-6135-297-3. DOI: <a href="https://doi.org/10.22271/ed.book.3025">https://doi.org/10.22271/ed.book.3025</a>.
- 27. Sangi, L. Ghosh, M. and Ghosh, J. A Review Paper on Impact on Nutrition Education among Student, *Applied Clinical Nutrition and Food Science: A Holistic Guide towards Robust Health*, 2024: 21-30, ISBN: 978-93-6233-051-2. DOI: <a href="https://doi.org/10.62906/bs.book.142">https://doi.org/10.62906/bs.book.142</a>.
- 28. Sinha, S. and **Ghosh, J**. Anaemia Burning Problems for Pregnant Women a Days Also, *Applied Clinical Nutrition and Food Science: A Holistic Guide towards Robust Health*, 2024: 97-106, ISBN: 978-93-6233-051-2. DOI: <a href="https://doi.org/10.62906/bs.book.142">https://doi.org/10.62906/bs.book.142</a>.

- 29. **Ghosh J**. (2024). Diagnosis, Dietary Treatment and Prevention of Nutritional Anaemia, *Therapeutic Nutrition A Comprehensive Guide for Healthy Lifestyle*, 45-61, ISBN: 978-93-5834-142-3. DOI: <a href="https://doi.org/10.62778/int.book.438">https://doi.org/10.62778/int.book.438</a>.
- 30. Tewari, S. and **Ghosh, J.** (2024). The Wonders of Fermented Foods and Their Effects on Well-Being, *Archive of Human Health and Wellbeing*, 123-134, ISBN: 978-93-6135-299-7. DOI: 10.22271/ed.book.2750.
- 31. Alieozaman, S., **Roy, M.** (2025). Antioxidant on Coronary Artery Disease. Revolutionary Approaches of Food Science, Technology and Processing. Penprints. 2025.ISBN 978-81-988004-2-8, 79-88.
- 32. Mondal, M., Roy, M. (2025). Review on the Impact of Regular Kiwi Fruit Consumption on Cardiac Diet. Food Technology Revolution: Shaping the Next Generation of Nutrition. The Book World. 2025. ISBN-978-93-81231-54-8. 29-36.
- 33. Food Service Management" Fundamentals of Food Science and Beyond, Contributed by Department of Food and Nutrition, Swami Vivekananda University, ISBN:978-93-6039-536-0
- "Introduction to Therapeutic Diet" THERAPEUTIC NUTRITION A Comprehensive Guide for healthy lifestyle, INTEGRATED PUBLICATION, NEW DELHI, ISBN: 978-93-5834-142-3.<a href="https://doi.org/10.62906/bs.book.142">https://doi.org/10.62906/bs.book.142</a>
- 35. CHAPTER-4 "Dragon Fruit Diversification: A Detailed Review on Variations and Nutritional Profiles" CLINICAL NUTRITION AND FOOD SCIENCE A Holistic Guide Towards Robust Health.https://doi.org/10.62778/int.book.438
- 36. Exploring the Preventative Potential of Kiwi: A Critical Review Concerning the Anti-Carcinogenic Benefits of Kiwi Fruit, Recent Trends and Innovations in Food Science, Food Technology & Nutrition.https://doi.org/10.22271/ed.book.3025
- 37. A Review on Ragi , A Calcium Rich Food , Revolutionay Approaches in Food Science, Technology and Processing , Penprints , 2025 , 978-81-988004-2-8
- 38. Food Technology Revolution: Shaping the Next Generation of Nutrition, A Review of the effects of Stress and Sleep on Appetite and Weight Management, The book World, 2025, 978-93-81231-54-8
- 39. Thakurata S G, **Das M**. (2024) A Comprehensive Review on Emerging Therapeutic Potential of Banana Flower. Recent Trends and Innovation in Food Science, Food Technology & Nutrition.
- 40. Das M. (2024) Obesity and Related Complications. Therapeutic Nutrition, A comprehensive guide for healthy lifestyle.
- **41.** Mondal S, Ghosal S, **Das M.** (2024). A comprehensive review on curcumin and its role in liver disease. Applied Clinical Nutrition and Food Science: A Holistic Guide towards Robust Health
- 42. Bhattacharya C & **Das, M**.(2025). Food Technology Revolution: Shaping the Next Generation of Nutrition. The role of probiotics in gut health and immune function.

- 43. Kundu G & **Das, M**.(2025). Food Technology Revolution: Shaping the Next Generation of Nutrition. Investigating the potential of algal based food innovations for climate-resilient diets.
- 44. **Das, M.,** & Kundu., R (2025). Revolutionary Approaches in Food Science, Technology and Processing.Pen Prints. Exploring the emerging potential of nutraceuticals from marine sources: A comprehensive review of current trends and future prospects.

#### Patent:

- Tripathi, P. K., & Tewari, S. (2025). *IoT-based device for monitoring climate changes* (Application Nos. 439669-001 & 446822-001, Filed 04 February 2025, Published 13 May 2025).
- 2. Tewari, S., Mishra, S., Bharti, B. K., Gautam, A., Mitra, R. D., & Chhaya, S. (2025). *Device for detection of food adulteration* (Application No. 443552-001, Filed 08 January 2025, Published 24 March 2025).
- 3. Tewari, S., Parida, S., Kar, S., Ghosh, A., Mukherjee, P., & Khalua, R. K. (2024). *Solar-powered soil testing device with biofertilizer dispenser* (Application No. 439669-001, Filed 06 December 2024, Published 24 January 2025).
- 4. Prakash N; Maity M (2025) A method for preparing a gluten-free multi-grain flour enriched with lysine, methionine, and L-carnitine, Application No.202531040693 A Date of Publication: 02/05/2025
- Mitra D. Rupali, Ghosh R. Priya, Das, S, , Mondal K Kingshuk, Dubey K Kriti, Singh S., Sarangi K Ashok, Kumar S. Rumila, Basu S., Jaiswal G. Swapnil., Koley S. (2024) A Method for Preparation and Composition of Millet Starch Based Bioplastics. Indian patent Application no.: 202431048156, Date of Filing: 23/06/2024, Date of Publication: 05/07/2024.
- 6. Mitra D. Rupali, Mistry. Poulami, Sengupta Prantika, Das, S, Dubey K Kriti, Mondal K Kingshuk, Mukherjee Papia, Jaiswal G. Swapnil, Thote S. Kalyani, Londhe V. Muktanand, Sontakke D. Manmath, Maske V. Sachin (2025), AN EFFICIENT METHOD AND SYSTEM FOR PREPARING NUTRIENT-RICH BROCCOLI AND CASHEW NUT SPREAD. Indian patent Application no.: 202531001844, Date of Filing: 08/01/2025, Date of Publication: 17/01/2025.
- 7. Dev M, Thapar P, Ghosh S, Das J, Ash S, Das M, Baidya F, Biswas S, Tulsi-Extract Based Whey Drink Composition. 35/2024. 202431062953.Publication date-30/08/2024.

#### 6. Conferences, Workshops and Seminars organised

- 2<sup>nd</sup> International Conference on Agriculture, Life Sciences and Food & Nutrition (ICALF)
   2024, Date: 22-24 February, 2024
- 2<sup>nd</sup> International Conference on Scientific Advances in Life Sciences, Agriculture, and Food
   & Nutrition (ICSA) 2024, Date: June, 2024
- 1<sup>st</sup> International Conference on the Future of Sustainable Development: Challenges and Opportunities (ICFSDCO,2024), Date: 25-26 September, 2024
- International Conference on Science and Technological Innovations in Agriculture, Life Sciences and Food &Nutrition (ICALF, 2025), Date: 04-06 February, 2025
- Nutrition counselling skills workshop (February 2025, March, 2025).
- Seminar on Functional Foods: Benefits, Concerns and Challenges, Date: 23<sup>rd</sup> July 2025A seminar and workshop on World Breastfeeding Week Celebration, Date: 5<sup>th</sup> August, 2025
- Seminar and Workshop on Integrated Communication and Outreach Program in collaboration with CBC Kolkata, 9-11 September, 2025
- Seminar on National Nutrition Month Celebration, Date: 23<sup>rd</sup> September 2025
- FoSTaC (certification under FSSAI) training for B.Sc. and M.Sc. students (March 2025).
- Outreach program at 6 schools and old-age homes.

# Department of Agriculture (June 2024-July 2025)

#### Brief Details about the Department

The progression of agriculture has contributed to the growth of human development. Earlier a farmer could produce sufficient food only for his family but with the advancement of various irrigation methods, electricity assistance, machinery, genetically modified organisms and other modern technologies, today farmers can grow agricultural products for more than 50 families. To guarantee the perpetuation of agriculture, the country has had a high demand for qualified professionals along with modern scientific equipment and technology. Swami Vivekananda University provides a four-year B.Sc. honours degree in Agriculture & four-year B.Tech degree with the sole purpose to produce graduate students who have the competence to improve the agricultural sector and enhance productivity. The academic curriculum focuses on the principles of biology, science and technology. In addition to this, subjects like agronomy, plant genetics, soil science, agriculture engineering and horticulture make the basic framework of this program. In view of globalization and development of new technologies, the expert faculties ensure that the students meet international quality standards to always stay ahead of the learning curve. So, take the first step towards a vibrant journey in Agriculture.

#### **Courses Offered:**

B.Sc.(H) in Agriculture

M.Sc. in Agriculture

#### **Faculty Details**

Name of the Teacher	Specialization
Swapan Kumar Dutta	Agricultural Chemistry, Soil Science, Arsenic, Water Management, Environmental Science, Soil pollution and contamination, Soil Chemistry, Soil Fertility and Nutrient dynamics, Soil physics
Tanmoy Sarkar	Fruit Breeding; Production Technology of Fruits; Post-harvest Technology of Horticultural Crops; Germplasm Conservation
Sudip Sengupta	Agricultural Chemistry, Soil Science, Arsenic, Water Management, Environmental Science, Soil pollution and contamination, Soil Chemistry, Soil Fertility and Nutrient dynamics, Soil physics
Suprabuddha Kundu	Plant tissue culture, Genetic engineering, Germplasm conservation, Secondary metabolites, Molecular markers, Mushroom technology
Parijat Bhattacharya	Agricultural Chemistry, Soil Science, Soil Chemistry, Soil Fertility & Nutrient dynamics, Soil pollution & contamination, Environmental Science
Ria Mukhopadhyay	Plant Pathology: Biological control of plant pathogens, Nanotechnology in managing biotic stress in planta

Mahafuzar Rahaman	Agronomy, Conservation Agriculture, Biostimulants, Crop rotation, Rice based cropping system
Anirneeta De	Germplasm conservation, Molecular markers, Abiotic stress, Rice breeding
Animesh Ghosh Bag	Soil Science, Arsenic and heavy metal, Water Management, Environmental Science, Micro and secondary nutrients
Rakesh Das	Germplasm Conservatio
Tanmoy Majhi	Surface water modelling, Flood routing, Sediment yield modelling, Soil conservation, Remote sensing, Drip and sprinkler irrigation, Watershed management, Water harvesting
Sayani Bhowmick	Agricultural Meteorology, Climate change, Climate
Arpan Dey	modelling, Agroclimatic zones
Amit Kumar Bar	Environmental Science, Soil pollution and contamination
Mosiur Rahaman	Agronomy, Conservation Agriculture, Biostimulants,
Premasis Sukul	Crop rotation, Rice based cropping system
Brati Acharya	Soil Chemistry, Soil Fertility and Nutrient dynamics, Soil physics
Avishek Chatterjee	Agronomy, Conservation Agriculture, Biostimulants, Crop rotation, Rice based cropping system
Jayita Hore	Soil Chemistry, Soil Fertility and Nutrient dynamics, Soil physics
Achintya Kumar Pal	Crop rotation, Rice based cropping system
Puran Pokhrel	Plant Pathology, Plant Virology, Molecular Biology, Virus Transmission Biology, Virus-Vector Interaction Dynamics, Molecular Diagnostics, 3D viral protein modeling
Aniket Baishya	Agronomy, Conservation Agriculture, Biostimulants, Crop rotation, Rice based cropping system
Sukhram Thapa	Agronomy, Conservation Agriculture, Biostimulants, Crop rotation, Rice based cropping system
Sahely Kanthal	Plant Pathology, Plant Virology, Molecular Biology, Virus Transmission Biology, Virus-Vector Interaction Dynamics, Molecular Diagnostics, 3D viral protein modeling
Sujosh Nandi	Agricultural Meteorology, Climate change,

	Climate
Naznin Khatun	Soil Chemistry, Soil Fertility and Nutrient dynamics, Soil physics
Pranay Sarkar	Agricultural Meteorology, Climate change, Climate
Subham Dutta	Plant Pathology, Plant Virology, Molecular Biology, Virus Transmission Biology, Virus-Vector Interaction Dynamics, Molecular Diagnostics, 3D viral protein modeling

### External Members on the Board of Studies:

Prof. Champak Kumar Kundu	Professor, Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya
Prof. Subrata Karmakar	Professor, Department of Farm Machinery and Power, Bidhan Chandra Krishi Viswavidyalaya
Prof. Mahadev Pramanik	Professor, Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya
Prof. Nirmal Mandal	Professor, Department of Agricultural Biotechnology, Bidhan Chandra Krishi Viswavidyalaya
Prof. Dhananjoy Dutta	Professor, Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya
Prof. Susanta Kumar Sarkar	Professor, Department of Fruit Science, Bidhan Chandra Krishi Viswavidyalaya

# Publications Details (Conference / Patent / Research Papers) Write in different section for Conference Proceedings, Patent and Research Papers

#### **Journal Publications**

- 1. Patra, S. K., Sengupta, S., Banik, M., & Poddar, R. (2025). Improving the root yield, quality, water productivity and economics of sarpagandha (Rauwolfia serpentina L. Benth.) through irrigation and nitrogen management. *Irrigation and Drainage*, 74(2), 673-687.
- 2. Adak, E., Halder, S., Koley, B., Biswas, S., Sengupta, S., Kundu, S., & Sarkar, T. (2024). An Overview of the Importance of Biochar in Sustainable Agriculture. *Journal of Advances in Biology & Biotechnology*, *27*(6), 924-937.
- 3. Hazra, S., Chatterjee, A., Bhattacharyya, S., & Sen, P. (2024). Nucleoredoxin Vis-à-Vis a novel thioredoxin in regulating oxidative stress in plants: A review. *Agricultural Research*, *13*(3), 400-418.
- 4. Sen, P., Chatterjee, A., Kumar, D., Bhattacharyya, S., Bandyopadhyay, S., & Sarkar, A. (2024). Genetic and functional mechanisms of yield-related genes in rice. *Acta physiologiae plantarum*, 46(3), 29.
- 5. Ansari, R., Manna, A., Hazra, S., Bose, S., Chatterjee, A., & Sen, P. (2025). Breeding 4.0 vis-à-vis application of artificial intelligence (AI) in crop improvement: an overview. *New Zealand Journal of Crop and Horticultural Science*, 53(4), 812-854.
- 6. Kumar, D., & Mukhopadhyay, R. (2025). Climate change and plant pathogens: Understanding dynamics, risks and mitigation strategies. *Plant Pathology*, *74*(1), 59-68.
- 7. Kumar, D., Chaudhury, R.S., Mandal, K., Pradhan, P., Bhattacharya, S., Das, B., Mukhopadhyay, R., Phani, V., Prudveesh, K., Nath, S. and Mandal, R. (2024). Identification of genes associated to  $\beta$ -N oxalyl-L- $\alpha$ ,  $\beta$ -diaminopropionic acid and their role in mitigating salt stress in a low-neurotoxin cultivar of Lathyrus sativus. *Plant Physiology and Biochemistry*, 207, 108388.
- 8. Mukhopadhyay, R., Boro, P., Karmakar, K., Pradhan, P., Saha Chowdhury, R., Das, B., Mandal, R. and Kumar, D., (2024). Advances in the understanding of heat shock proteins and their functions in reducing abiotic stress in plants. *Journal of Plant Biochemistry and Biotechnology*, 33(4), 474-491.
- 9. Bhattacharya, P., Sengupta, S., & Bhattacharyya, K. (2024). Cationic micronutrient fractions in some tropical Alfisols and Inceptisols as affected by organic amendments and simulated moisture regimes: an incubation study. *Journal of Plant Nutrition*, *47*(10), 1527-1545.
- 10. Samanta, K., Khalid, T., & Majhi, T. (2024). Design and implementation of efficient sprinkler irrigation systems. *International Journal of Agriculture and Nutrition, 6*(2), Article 180. <a href="https://doi.org/10.33545/26646064.2024.v6.i2a.180">https://doi.org/10.33545/26646064.2024.v6.i2a.180</a>
- 11. Sarkar, T., & Das, K. (2024). Exploring new frontiers in banana (*Musa* spp.) farming: Challenges and opportunities. *International Journal of Agriculture and Nutrition, 6*(2), Article 181. <a href="https://doi.org/10.33545/26646064.2024.v6.i2a.181">https://doi.org/10.33545/26646064.2024.v6.i2a.181</a>
- 12. Adak, E., & Sengupta, S. (2024). Role of polyhalite in soil-plant nutrition studies. *International Journal of Agriculture and Nutrition*, 6(2), Article 179. <a href="https://doi.org/10.33545/26646064.2024.v6.i2a.179">https://doi.org/10.33545/26646064.2024.v6.i2a.179</a>
- 13. Dutta, A., & Chatterjee, A. (2024). Biotechnological approach to improve nutritional quality of plants. *International Journal of Agriculture and Nutrition, 6*(2), Article 182. <a href="https://doi.org/10.33545/26646064.2024.v6.i2b.182">https://doi.org/10.33545/26646064.2024.v6.i2b.182</a>
- 14. Pal, P., & Bhattacharya, P. (2024). Soil physical properties: A crucial component of ecosystem health and productivity. *International Journal of Agriculture and Nutrition, 6*(2), Article 183. <a href="https://doi.org/10.33545/26646064.2024.v6.i2b.183">https://doi.org/10.33545/26646064.2024.v6.i2b.183</a>
- 15. Mandal, P., Washim, M., & Das, R. (2024). Integrating pollinator-friendly practices in modern

- farming: Balancing crop productivity and biodiversity. *International Journal of Agriculture and Nutrition, 6*(2), Article 184. <a href="https://doi.org/10.33545/26646064.2024.v6.i2b.184">https://doi.org/10.33545/26646064.2024.v6.i2b.184</a>
- 16. Bullah, M. M., & Mukhopadhyay, R. (2024). Molecular biology and control strategies for plant viruses. *International Journal of Agriculture and Nutrition*, 6(2), Article 185. <a href="https://doi.org/10.33545/26646064.2024.v6.i2b.185">https://doi.org/10.33545/26646064.2024.v6.i2b.185</a>
- 17. Deb, A., & Bhowmick, S. (2024). Zero budget natural farming: A sustainable agricultural practice. *International Journal of Agriculture and Nutrition*, 6(2), Article 186. <a href="https://doi.org/10.33545/26646064.2024.v6.i2b.186">https://doi.org/10.33545/26646064.2024.v6.i2b.186</a>
- 18. Ghosh, M., Samanta, A., Gazi, A., & Kundu, S. (2024). Economic viability of tissue-cultured papaya plants for small-scale farmers. *International Journal of Agriculture and Nutrition, 6*(2), Article 187. <a href="https://doi.org/10.33545/26646064.2024.v6.i2b.187">https://doi.org/10.33545/26646064.2024.v6.i2b.187</a>
- 19. Dutta, A., & Chatterjee, A. (2024). Harnessing genome editing: Innovations and applications in crop science. *International Journal of Agriculture and Food Science, 6*(2), Article 210. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2b.210">https://doi.org/10.33545/2664844X.2024.v6.i2b.210</a>
- 20. Mahapatra, B., & Mukhopadhyay, R. (2024). Identification, impact, and management of pathogens in the soil. *International Journal of Agriculture and Food Science*, 6(2), Article 212. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2b.212">https://doi.org/10.33545/2664844X.2024.v6.i2b.212</a>
- 21. Sasmal, D., & Bhattacharya, P. (2024). Understanding the vital role of zinc in plant nutrition. *International Journal of Agriculture and Food Science*, 6(2), Article 213. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2b.213">https://doi.org/10.33545/2664844X.2024.v6.i2b.213</a>
- 22. Khatun, A., & Kundu, S. (2024). Impact of meristem culture on citrus breeding programs. *International Journal of Agriculture and Food Science*, 6(2), Article 214. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2b.214">https://doi.org/10.33545/2664844X.2024.v6.i2b.214</a>
- 23. Washim, M., Mandal, P., & Das, R. (2024). Pesticide resistance in insects: Challenges and sustainable solutions for modern agriculture. *International Journal of Agriculture and Food Science*, 6(2), Article 215. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2b.215">https://doi.org/10.33545/2664844X.2024.v6.i2b.215</a>
- 24. Samanta, S., & Sengupta, S. (2024). Integrated nutrient management (INM) in sustainable plant nutrition. *International Journal of Agriculture and Food Science*, 6(2), Article 216. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2b.216">https://doi.org/10.33545/2664844X.2024.v6.i2b.216</a>
- 25. Sarkar, T. (2024). Karonda: An underutilized fruit crop, promise as a significant asset for rural economies. *International Journal of Agriculture and Food Science*, *6*(2), Article 217. https://doi.org/10.33545/2664844X.2024.v6.i2b.217
- 26. Samanta, K., Khalid, T., & Majhi, T. (2024). A comparative analysis of sensor-based irrigation system. *International Journal of Agriculture and Food Science, 6*(2), Article 218. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2c.218">https://doi.org/10.33545/2664844X.2024.v6.i2c.218</a>
- 27. Das, D., & Bhowmick, S. (2024). Climate change: A growing threat to food security. *International Journal of Agriculture and Food Science*, 6(2), Article 211. https://doi.org/10.33545/2664844X.2024.v6.i2b.211
- 28. Sarkar, T., & Mondal, T. (2024). Recent advances and achievements in mutation breeding of fruit crops. *International Journal of Agriculture and Food Science, 6*(2), Article 220. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2c.220">https://doi.org/10.33545/2664844X.2024.v6.i2c.220</a>
- 29. Das, D., & Sengupta, S. (2024). The role of microorganisms in agriculture: Enhancing soil health, crop productivity, and sustainable farming practices. *International Journal of Agriculture and Food Science*, 6(2), Article 219. <a href="https://doi.org/10.33545/2664844X.2024.v6.i2c.219">https://doi.org/10.33545/2664844X.2024.v6.i2c.219</a>
- 30. Thakur, S., Sinha, A., Bag, A. G., Almalki, R. S., & Hossain, A. (2025). Challenges, solutions and policy issues for residue burning in Indian agriculture: searching key steps to reduce

- environmental pollution. Air Quality, Atmosphere & Health, 18(4), 1225-1255.
- 31. Patra, S. K., Banik, M., Sengupta, S., & Datta, A. (2025). Optimizing Onion Yield by Exploring Seasonal Evapotranspiration, Water Productivity and Crop Water Production Functions Under Microsprinkler Irrigation and Nitrogen Fertilization. *Irrigation and Drainage*. 1-20.
- 32. Das, S., Dutta, S., Choudhury, M.R., Garai, S., Mukherjee, S., Sengupta, S., Jana, S., Dey, S., Dhar, A., Dutta, S. and Awasthi, A., (2025). Regenerating rural soil and ecosystems: A 15-year systematic review of emerging methods and technologies. *Science of the Total Environment*, *990*, p.179926.
- 33. Ahmed, B., Dutta, S., Atta, K., & Barman, M. (2025). Unraveling the Molecular Response: Transcriptomics Analysis of Heat Shocked Bemisia tabaci (Asia II 5 Biotype). *Ecological Genetics and Genomics*, 100386.

#### **Book Chapters (International Publishers)**

- 1. Dutta, T., Shilky, Dwivedi, N., Biswas, J.K., Saikia, P., Bordoloi, N., Sengupta, S., Mondal, B. and Kumar, M., 2024. Agricultural Non-CO2 Greenhouse Gases: Sources and Consequences. In *Agricultural Greenhouse Gas Emissions: Problems and Solutions* (pp. 115-140). Singapore: Springer Nature Singapore.
- 2. Banerjee, P., Bhattacharya, P., Bera, A., & Hossain, A. (2024). Plant growth-promoting Rhizobacteria (PGPR): an indispensable tool for climate-resilient crop production. In *Microbial Symbionts and Plant Health: Trends and Applications for Changing Climate* (pp. 209-231). Singapore: Springer Nature Singapore.
- 3. Mukhopadhyay, R., Nath, S., Kumar, D., Sahana, N., & Mandal, S. (2024). Basics of the molecular biology: from genes to its function. In *Genomics Data Analysis for Crop Improvement* (pp. 343-374). Singapore: Springer Nature Singapore.
- 4. Mukhopadhyay, R., & Biswas, K. (2024). Reports of Actinomycetes to Degrade Microplastic. In *Microplastic Pollution* (pp. 473-489). Singapore: Springer Nature Singapore.

#### **Book Chapters (National and Institutional Publishers)**

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- 1. Malik, A., & Sarkar, T. (2024). Management and utilization of waste in the horticultural food industry. In T. Sarkar & S. Sengupta (Eds.), *Agriculture re-imagined: Innovations and strategies for sustainable growth*. ISBN: 978-93-6233-556-2
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- 6. Sarkar, T., Bhowmick, S., Rahaman, M., & De, A. (2025). *Nutrient management practices in crops and cropping system*. [Swami Vivekananda University]. ISBN 978-93-334-196856
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#### **Patents**

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- 2. Sarkar, T., & Sengupta, S. (2024). *Automated sanitization system for laboratory environments* (Awarded 13 December 2024; Indian Patent No. 202431090713A). Swami Vivekananda University, Indian Patent Agency.
- 3. Sarkar, T., & Mukhopadhyay, R. (2024). *Sun Blow Seed Separator: An innovative solar-powered solution for efficient seed separation in agriculture* (Awarded 13 December 2024; Indian Patent No. 202431090727A). Swami Vivekananda University, Indian Patent Agency.
- 4. Sarkar, T. (2024). *Application of micronutrients and organic manures on plant growth of Dragon fruit c.v. Moroccan Red* (Awarded 29 November 2024; Indian Patent No. 202431091402A). Swami Vivekananda University, Indian Patent Agency.
- 5. Sarkar, T., & Majhi, T. (2024). *Eco Seed Hydro-Seeding Technology for sustainable and efficient vegetation establishment* (Awarded 29 November 2024; Indian Patent No. 202431091411A). Swami Vivekananda University, Indian Patent Agency.
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- 7. Sarkar, T., Kundu, S., & Bhattacharya, P. (2024). *Optimizing shelf life of Pink Oyster Mushrooms with potassium metabisulphite and modified atmosphere packaging* (Awarded 29 November 2024; Indian Patent No. 202431091435A). Swami Vivekananda University, Indian Patent Agency.
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- 12. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., & Bhowmick, S. (2025). *Biophilic design system for architectural spaces* (Awarded 28 March 2025; Indian Patent No. 202531022105A). Swami Vivekananda University, Indian Patent Agency.
- 13. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., & Bhowmick, S. (2025). *Method of making and preserving dry flowers* (Awarded 28 March 2025; Indian Patent No. 202531022104A). Swami Vivekananda University, Indian Patent Agency.
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- 16. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., & Bhowmick, S. (2025). *Bee venom collection device* (Awarded 28 March 2025; Indian Patent No. 202531021915A). Swami Vivekananda University, Indian Patent Agency.
- 17. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., & Bhowmick, S. (2025). *Method for tissue culture crop production* (Awarded 28 March 2025; Indian Patent No. 202531040694A). Swami Vivekananda University, Indian Patent Agency.
- 18. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., & Bhowmick, S. (2025). *Method of cultivating Moringa oleifera* (Awarded 28 March 2025; Indian Patent No. 202531022083A). Swami Vivekananda University, Indian Patent Agency.
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- 20. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., Bhowmick, S., Deb, A., & Mondal, D. (2025). *A hydroponic farming system for soil-less plant cultivation* (Awarded 2 May 2025; Indian Patent No. 202531040691A). Swami Vivekananda University, Indian Patent Agency.
- 21. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., Bhowmick, S., Ghosh, M., Samanta, A., & Santra, K. (2025). *A method for tissue culture crop production* (Awarded 2 May 2025; Indian Patent No. 202531040694A). Swami Vivekananda University, Indian Patent Agency.
- 22. Sarkar, T., Sengupta, S., Kundu, S., Bhattacharya, P., Mukhopadhyay, R., Rahaman, M., De, A., Ghosh Bag, A., Das, R., Majhi, T., Bhowmick, S., Mazumder, B., Dutta, S., Sinha, A., & Laha, A. (2025). *A biofertilizer composition* (Awarded 2 May 2025; Indian Patent No. 202531040470A). Swami Vivekananda University, Indian Patent Agency.

#### Conferences, Workshops, Seminars organized

- International Conference on Scientific Advances in Life Sciences, Agriculture and Food & Nutrition (ICSA 2024), held from June 20th to 21st, 2024
- International Conference on The Future of Sustainable Development: Challenges and Opportunities (ICFSDCO, 2024), held from September 25th to 26th, 2024
- International conference on "Science and Technological Innovations in Agriculture, Life Sciences and Food and Nutrition", held from February 4th to 6th, 2025
- Social outreach initiatives like the Krishi Mela conducted from February 13–15, 2025
- Workshop titled "Discovering New Frontiers in Biovia Material Science and Drug Discovery" was held in collaboration with Dassault Systems and Centurion University on February 11, 2025
- Five-day training program on Homestead Mushroom Cultivation was conducted from 17th to 21st February, 2025

#### **Training & Placement**

The Training and Placement Cell of Swami Vivekananda University, Barrackpore, acts as a dynamic bridge between academic learning and professional opportunities. It plays a pivotal role in shaping the future careers of students by providing them with the essential skills, industry exposure, and confidence required to succeed in an increasingly competitive global market.

With a steadfast commitment to student success, the Cell focuses on developing technical proficiency, professional ethics, and holistic personality growth. Its efforts have translated into remarkable outcomes — the University proudly achieved an 93% placement rate in the academic session 2023–24, reflecting both the excellence of its students and the sustained dedication of the Training and Placement team.

The University's distinctive approach begins from the very first day of classes, as every student is given access to skill-based training programs designed to make them industry-ready. Specialized training and certification modules are available in domains such as:

- Artificial Intelligence
- Data Science
- Full Stack Development
- Bioinformatics
- Electric Vehicles (EV)
- Machine Learing
- Solar Technology
- 3D Design
- and other emerging technologies aligned with global industrial trends.

To further enhance employability, the Cell conducts workshops, technical sessions, aptitude training, mock interviews, group discussions, and personality development programs on a regular basis. These initiatives strengthen students' communication skills, analytical thinking, and professional demeanor.

In addition, students gain hands-on exposure through industrial visits, internships, and collaborative projects organized in partnership with leading national and multinational companies. The Cell maintains strong relationships with corporate organizations, research bodies, and industry experts, facilitating continuous interaction through seminars, guest lectures, and placement drives.

The vision of the Training and Placement Cell is to create a vibrant ecosystem where academic excellence meets practical experience, ensuring that every student graduates as a confident, competent, and socially responsible professional.

By emphasizing holistic growth, skill enhancement, and lifelong learning, the Cell remains a cornerstone of Swami Vivekananda University's mission to produce future-ready innovators, leaders, and change-makers.