

# Dr. Sanjay Nag

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## Personal Details

Name: Sanjay Nag

Date of Birth: 18/01/1975

Gender: Male

Nationality: Indian



## Education

**Ph.D. (Tech.) Information Technology** **2020**

*Title of Thesis – Fully Automated Computer Aided Diagnosis System For Malaria Detection And Analysis*

A. K. Choudhury School of Information Technology,  
University of Calcutta, India

**Master in Computer Application** **2010**

Indira Gandhi National Open University  
Marks Obtained 57.17%

**Advance Diploma in Computer Application** **2009**

Indira Gandhi National Open University  
Marks Obtained 58%

**Post Graduate Diploma in Computer Application** **2005**

Indira Gandhi National Open University  
Marks Obtained 57.17%

**Certificate in Computing** **1997**

Indira Gandhi National Open University  
Marks Obtained 85.5%

**Bachelor of Science (Honors) in Botany** **1997**

University of Calcutta, India  
Marks Obtained 61.7% (First Class)

## Experience

### **Associate Professor**

**01/2024 – Present**

Swami Vivekananda University

#### *Responsibilities –*

- Actively participate in Teaching & Learning Process
- Student Mentorship
- University related administrative work
- Guide/Supervise PhD students (6 scholars)

### **Associate Professor**

**12/2022 – 12/2023**

Lincoln Research Institute, India

(under Lincoln University College, Malaysia)

#### *Responsibilities –*

- Administrative activities pertaining to Academics
- Manage PhD and Internship students
- University related administrative work
- Guide/Supervise PhD students

### **Assistant Professor**

**02/2022 – 12/2022**

Brainware University

#### *Responsibilities –*

- Administrative activities pertaining to Academics
- University related work like Exams/Affiliation/NAAC
- Conduct BCA/MCA Classes/Laboratory
- Conduct University Examination.
- Conduct Research Work/PhD Guidance

### **Principal**

**07/2021 – 01/2022**

Gurukul Management Studies (affiliated to MAKAUT), West Bengal

#### *Responsibilities –*

- Manage Campus activities involving faculty/students
- University related work like Exams/Affiliation
- Conduct BCA Classes/Laboratory
- Conduct University Examination.
- Feedback and Report to Management

### **Research Scholar**

**06/2014 - 10/2020**

A. K. Choudhury School of Information Technology

University of Calcutta, West Bengal, India

#### *Responsibilities –*

- Conduct research work and publish research articles
- Supervise MSc.& B.Tech projects
- Conduct Theoretical & Laboratory Classes for B-Tech, MSc.
- Conduct Examination for B-Tech, MSc.

### **Research Scholar**

**09/2017 - 09/2019**

JIS University, West Bengal, India

#### *Responsibilities –*

- Conduct research work and publish research articles
- Conduct Theory Classes for B-Tech CSE
- Conduct Laboratory Classes for B-Tech CSE
- Conduct Examination for B-Tech CSE.

**Senior Programmer****01/2015 - 12/2015**

DeitY Sponsored (Government of India)

University of Calcutta, West Bengal, India

*Responsibilities –*

- Conduct research and publish in journal
- Conduct research pertaining to sponsored project
- To develop algorithms and code
- Implement System and testing
- Documentation of research findings
- Coordinate among participating R&D Institutes

**Research Scholar****01/2014 - 12/2014**

(TEQIP – II Sponsored)

University of Calcutta, West Bengal, India

*Responsibilities –*

- Conduct research work and publish research articles
- Teaching Assistant to Supervisor
- Assist in TEQIP – II Documentation

**DEO & Coordinator****09/2012 –12/2013**

(TEQIP – II Sponsored)

West Bengal University of Technology, India

*Responsibilities –*

- Coordinate TEQIP – II Activities
- Assist TEQIP – II Coordinator
- Conduct Meeting with all Stakeholders
- Data Entry to TEQIP – II MIS
- Collecting Data from University

**Teacher-in-Charge Computer Science****01/2010 - 08/2012**

IETE, Kolkata Center, West Bengal, India

*Responsibilities –*

- Conduct Theoretical Classes for DIETE, AMIETE
- Conduct Laboratory Classes for DIETE, AMIETE
- Conduct Exam Activities

**Teaching Coordinator****02/1998 -12/2009**

IETE, Kolkata Center, West Bengal, India

*Responsibilities –*

- Coordinate Academic Activities
- Conduct Exam Activities

- Coordinate Seminars and Workshops
- Coordinate Monthly Meetings and Annual General Meeting
- Prepare and maintain Minutes of meetings and records.

## Technical Skill

|                         |                                       |
|-------------------------|---------------------------------------|
| Operation System        | Microsoft Windows, UNIX               |
| Programming Languages   | C, C++, C#.NET, ASP.NET, Java, Python |
| Web & Java Technologies | ASP.Net, JavaScript and ODBC          |
| Database & Frameworks   | Oracle, MySQL, MS SQL Server, Access  |
| Tools & IDEs            | Visual Studio, Eclipse, MATLAB,       |
| PC Tools                | MS Office.                            |

## Global Certification

### **MICROSOFT CERTIFICATION - MCP** **06/2011**

TS: Microsoft .NET Framework – Application Development Foundation with C#

Score: 815/1000

### **MICROSOFT CERTIFICATION – MCP** **06/2011**

TS: Microsoft .NET Framework 3.5, ASP.NET Application Development with C#

Score: 976/1000

### **IBM Cognos Analytics V11.1x Reporting Essentials** **06/2024**

## NET/SET/SLET

**Qualified the West Bengal 23rd SET for eligibility for Assistant Professor held on 09.01.2022 in the Subject “Computer Science”.**

**(SET Reference No WBSET/23-0615 and Roll No 10008397)**

## Research Interest

Pattern Analysis using Machine Learning  
Computer Aided Diagnostic System  
Digital Pathology  
Medical Image Processing  
Computer Vision & Artificial Intelligence  
Image Processing

## Membership

Life Member, Indian Science Congress Association

## Presentations

- Computer Aided Detection of Malaria Parasitic using Digitized Thin Blood Smear Slide Images, Invited Speaker in the 105th Indian Science Congress, Engineering Science Section. 16 - 20 March 2018 at Manipur Central University, Imphal.
- Hybrid Method for Malarial Parasite Detection, Invited Lecture, 22nd February 2017 at Vignan Institute of Information Technology (VIIT), Visakhapatnam, India
- Color-Based Segmentation of Thin Blood Smear image to detect Malaria parasite using Unsupervised Clustering, 31st Indian Engineering Congress, The Institution of Engineers (India), Kolkata, 2016, SMART Technologies for Natural Resource Conservation and Sustainable Development

## Seminar & Workshop Attended

- Biomedical Instrumentation and Signal Processing, organized by Center of Excellence in Systems Biology and Bio-medical Engineering, University of Calcutta, on 6-7, May 2016
- Machine Learning and its Applications, organized by Center of Excellence in Systems Biology and Bio-medical Engineering, University of Calcutta, on 11-16, July 2016
- Embedded System Design on Altera FPGA Development Board, organized by University of Calcutta in association with Enixs Technologies India Pvt. Ltd. & Pracsol Technologies (I) Pvt. Ltd., on 27-28, October 2016
- Engineering Sciences and Technologies for Environmental Care (ESTEC 2020), organized by CSIR-NEIST, Jorhat, on 20-22, February 2020.

## Languages

Bengali, Mother Tongue, Fluent  
English, Official Language, Fluent  
Hindi, Intermediate

## Projects Completed

- Developed a website “Prime Physique” using ASP. NET as an academic project in Aptech Computer Education, for pursuing of Microsoft Certification in 2011.
- “Image Processing Application for Real Time Obstacle Detection” as MCA Final Project, funded by VRDE Lab of DRDO Ahmednagar.
- Worked on live project on Breast Cancer Detection in University of Calcutta, funded by DeitY, Govt. of India in collaboration with C-DAC Thiruvananthapuram.

## FDP Attended

- “Innovation in Recent Trends and Research Applications on Computing and Informatics”, Organized by the Department of Information Technology in association with IQAC, HIT (17th July 2024 - 2nd August 2024)
- IBM Cognos Analytics V11.1x Reporting Essentials, IBM (17th June 2024 - 22nd June 2024)
- NPTEL – SWAYAM (IIT MADRAS) Object Oriented Programming (January to June 2025), **ELITE SILVER**
- NPTEL – SWAYAM (IIT KANPUR) Introduction to Programming in C (July to December 2025), **ELITE GOLD – TOPPER**
- NPTEL – SWAYAM (IIT KHARAGPUR) Programming in Java (January to June 2026), **ELITE GOLD – TOPPER (100%)**

## Courses Taught

|                                                             |                              |
|-------------------------------------------------------------|------------------------------|
| Research Methodology (PhD Coursework, MTech)                | SVU, LUC                     |
| Computer Application (PhD Coursework)                       | LUC                          |
| Digital Image Processing & Computer Vision (PhD Coursework) | SVU, BU                      |
| Database Management Systems                                 | SVU, BU, CU, JISU, GMS, IETE |
| Object Oriented Programming in JAVA                         | SVU, BU, CU, JISU, GMS, IETE |
| Advanced Java                                               | SVU                          |
| Object Oriented Programming with C++                        | BU, CU, JISU, GMS, IETE      |
| Object Oriented Design                                      | BU                           |
| Computer Fundamentals & C Programming                       | BU, CU, JISU, GMS, IETE      |
| Data Structures in C and C++                                | BU, CU, JISU, GMS, IETE      |
| Design & Analysis of Algorithms                             | BU, IETE                     |
| Software Engineering                                        | BU, CU, JISU, IETE           |
| Computer Organization                                       | CU, GMS, IETE                |
| Operating Systems & Systems Software                        | BU, CU, JISU, GMS, IETE      |
| Computer Applications in Pharmacy                           | BU                           |
| Data Analytics Using Excel                                  | BU                           |
| Personality Development Through Life Enlightenment Skills   | SVU                          |

|      |                                                                         |
|------|-------------------------------------------------------------------------|
| SVU  | Swami Vivekananda University, Barrackpore                               |
| LUC  | Lincoln University College, KL, Malaysia                                |
| BU   | Brainware University, Barasat                                           |
| CU   | University of Calcutta, Kolkata                                         |
| JISU | JIS University, Kamarhati                                               |
| GMS  | Gurukul Management Studies, Kakinada                                    |
| IETE | Institute of Electronics & Telecommunication Engineers, Kolkata Chapter |

## Other Activities

- External Examiner to CSE Department (BBIT – MAKAUT Affiliated Engineering College)
- Reviewer for Conference 1st International Conference on Smart Computing, Communication & Automation (ICSCCA 2K25)
- Session Chair for Conference 1st International Conference on Smart Computing, Communication & Automation (ICSCCA 2K25)
- Reviewer of Journal of IEEE ACCESS, PLOS ONE, SPRINGER, ELSEVIER
- 5th OPJU International Technology Conference (OTCON) on Smart Computing for Innovation and Advancement in Industry 5.0, RAIGARH, INDIA
- 4th International Conference on Human-Centric Smart Computing October 2025, Jaipur, India

## Mobility

Willing to travel / relocate

## References

Prof. Amlan Chakraborty – +91 9831129520, [achakra12@yahoo.com](mailto:achakra12@yahoo.com)

Dr. Debasis De – +91 9830363215

Dr. Nabanita Basu - +44 7436 029903, [nabs.basu@gmail.com](mailto:nabs.basu@gmail.com)

## Research Profile

Google Scholar ID: <http://scholar.google.co.in/citations?user=e0nydfAAAAAJ>

[Citations](#) 732

[h-index](#) 12

[i10-index](#) 14

Orchid ID: <http://www.orcid.org/0000-0002-1852-0552>

Scopus ID: <http://www.scopus.com/authid/detail.url?authorId=39262385700>

[Citations](#) 152

[h-index](#) 2

[Documents](#) 5

Vidwan ID: <https://vidwan.inflibnet.ac.in/profile/500259>

## Publication List

### **Journal Publications:**

1. Souvik Mazumder, **Sanjay Nag**, Prasenjit Kundu and Sayani Ghosh, (2025) A Systematic Review of Screening Techniques for Early Detection of Metastatic Brain Tumors and their Histopathological Correlation, Scope, Volume 15, Number 04, pg 1102-1125. (SCOPUS)
2. Souvik Mazumder, **Sanjay Nag**, Prasenjit Kundu and Sayani Ghosh, (2025) A Study on Advanced Image Processing Techniques for Detecting Brain Metastasis Tumors from Radiological Images, IJAR, ISSN:(O) 2320-5407, ISSN(P) 3107-4928, DOI: 10.21474/IJAR01/21562
3. **Nag S**, Basu N, Bose P, Bandyopadhyay SK. (2024) A Novel Grammar-Based Approach for Patients' Symptom and Disease Diagnosis Information Dissemination to Maintain Confidentiality and Information Integrity. Bioengineering (Basel). Dec 13;11(12):1265. doi: 10.3390/bioengineering11121265. PMID: 39768084; PMCID: PMC11673805. (SCOPUS Q2 SCIE)
4. Bose, A., & **Nag, S.** (2022). Green computing – A survey of the current technologies. Asia-Pacific Journal of Management and Technology, 03(02), 01-15. <https://doi.org/10.46977/apjmt.2022.v03i02.001>
5. Bose, A., & **Nag, S.** (2022). An overview of the state-of-the-art virtual machine placement algorithms for green cloud data centres. Asia Pacific Journal of Management and Technology, 03(01), 01-12. <https://doi.org/10.46977/apjmt.2022v03i01.001>
6. **Sanjay Nag** and Ms. Nabanita Basu, "Critical Analysis of Malaria Parasite Detection Using Machine Learning Technique", Journal of Medical Imaging and Health Informatics, Vol. 9, Number 4, pp830–837, 2019. DOI: <https://doi.org/10.1166/jmihi.2019.2677> (SCIE)
7. **Sanjay Nag** and Prof. Samir Kumar Bandyopadhyay, "Malaria Disease Diagnosis- Current Status of CAD Based Approach, Cohesive J Microbiol infect Dis. 1(2). CJMI.000506. 2018.
8. Samir Kumar Bandyopadhyay, **Sanjay Nag**, Nabanita Basu, "Computer Aided Diagnosis Based Malarial Parasite Detection- A Review", International Journal of Experimental and Clinical Research, Vol 2017, Issue 01, pp 1-34, 2017.
9. Prof. Samir Kumar Bandyopadhyay, **Sanjay Nag** and Nabanita Basu, "A Review on Biometric Security Systems", World Journal of Engineering Research and Technology, Vol. 2, PP.34 -45, 2016
10. **Mr. Sanjay Nag**, Ms. Nabanita Basu and Prof. Samir Kumar Bandyopadhyay, "Detecting Items Hidden Inside a Body", Journal for Research, Vol. 01, PP.1-6, 2016.
11. **Sanjay Nag**, Roshni Dasgupta, Sayan Dutta, Dr. Indra Kanta Maitra, and Prof. Samir Kumar Bandyopadhyay, "Edge Detection of Digitized Histopathological Slide Images Using Dynamic Thresholding", European Journal of Pharmaceutical and Medical Research, Vol.3, PP.532-537, 2016.
12. **Sanjay Nag** and Prof. Samir Kumar Bandyopadhyay, "Identification of Malaria Infection Using HSV Colour Model and Dynamic Thresholding with Image Binarization", Innovative Journal of Medical and Health Science, Vol. 6, PP. 31 – 34,
13. **Sanjay Nag**, Satabdi Bhattacharya, Ranita Banerjee, Dr. Indra Kanta Maitra and Prof. Samir Kumar Bandyopadhyay, "Pseudo-Grayscale Technique: A Pre-Processing Step towards Pathological Slide Analysis", European Journal of Biomedical and Pharmaceutical Sciences, Vol. 3, PP.385-390, 2016.
14. Nabanita Basu, **Sanjay Nag**, and Prof. Samir Kumar Bandyopadhyay, "Retrieval of Facial Expressions for Facilitating Crime Investigation", Asian Journal of Science and Technology, Vol.07, PP.2381-2387, 2016.
15. **Sanjay Nag**, Nabanita Basu and Prof. Samir Kumar Bandyopadhyay, "White Blood Cell Segmentation and Malaria", International Journal of Current Medical and Pharmaceutical Research, Vol. 2, PP.202-206, 2016.
16. Samir K. Bandyopadhyay and **Sanjay Nag**, "Detection of Contour of the element of the WBC

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- for Malaria Detection”- Advances in Computational Sciences and Technology, Volume 8, Number 1 (2015) pp. 7-15, 2015
17. Indra Kanta Maitra, **Sanjay Nag**, Pradip Saha and Samir K. Bandyopadhyay, “A Tree- based Approach Towards Edge Detection of Medical Image using MDT”, International Journal of Computer Graphics Vol. 6, No.1 (2015), pp.37-56, 2015
  18. Sudipta Roy, **Sanjay Nag**, Prof. Samir Kumar Bandyopadhyay, Prof. Debnath Bhattacharyya and Prof. Tai-hoon Kim, “Automated Brain Hemorrhage Lesion Segmentation and Classification from MR Image using an Innovative Composite Method” Journal of Theoretical and Applied Information Technology, Vol.78. No.1, Pages 35-45, August 2015.
  19. Sangita Bhattacharjee, Jashojit Mukherjee, **Sanjay Nag**, Indra Kanta Maitra and Samir K. Bandyopadhyay, "Review on Histopathological Slide Analysis using Digital Microscopy", International Journal of Advanced Science and Technology, Vol.62, pp.65-96, 2014.
  20. Indra Kanta Maitra, **Sanjay Nag** and Samir K. Bandyopadhyay, “Mammographic Density Estimation and Classification using Segmentation and Progressive Elimination Method”, International Journal of Image and Graphics, World Scientific Publishing Company, Vol. 13, Issue 3, pp. 1-19, August 2013.
  21. Sudipta Roy, **Sanjay Nag**, Indra Kanta Maitra and Samir K. Bandyopadhyay, “A Review on Automated Brain Tumor Detection and Segmentation from MRI of Brain", International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 3, Issue 6, pp. 1706-1746, June 2013.
  22. Sudipta Roy, **Sanjay Nag**, Indra Kanta Maitra and Samir K. Bandyopadhyay, "Artefact Removal and Skull Elimination from MRI of Brain Image", International Journal of Scientific and Engineering Research, ISSN 2229-5518, Vol. 4, Issue 6, pp 163-170, June-2013.
  23. Indra K Maitra, **Sanjay Nag** and Samir K. Bandyopadhyay, “Technique for preprocessing of digital mammogram”, Computer Methods Programs Biomedicine, Elsevier (CMPB), Vol 107, Issue 2, pp. 97-356, Aug-2012 (**SCI-Elsevier**)
  24. Indra Kanta Maitra, **Sanjay Nag** and Samir K. Bandyopadhyay, “A Novel Edge Detection Algorithm for Digital Mammogram”, International Journal of Information and Communication Technology Research, ISSN 2223-4985, Vol. 2 No. 2, pp. 207-205, Feb2012.
  25. Indra Kanta Maitra, **Sanjay Nag** and Samir K. Bandyopadhyay, “A Computerized Approach towards Breast Volume Calculation”, International Journal of Applied Information Systems (IJAIS), ISSN: 2249-0868, Vol. 1– No.4, pp. 16-20, Feb 2012
  26. Indra K Maitra, **Sanjay Nag**, Biswajita Datta, Samir K. Bandyopadhyay, “Digital Steganalysis: Review on Recent Approaches", Journal of Global Research in Computer Science (JGRCS), ISSN - 2229-371X, Vol. 2, No. 1, pp. 1-5, 2011
  27. Indra K Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, "Identification of Abnormal Masses in Digital Mammography Images", International Journal of Computer Graphics (IJCG), ISSN 2093-9663, Vol. 2, No. 1, pp. 17-31, 2011
  28. Indra K Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, "Detection and Isolation of Pectoral Muscle from Digital Mammogram: An Automated Approach", International Journal of Advanced Research in Computer Science (IJARCS), ISSN 0976-5697, Vol.2, No. 3, pp. 375-380, 2011
  29. Indra K Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, “Accurate Breast Contour Detection Algorithms in Digital Mammogram”, International Journal of Computer Applications (IJCA), ISSN 0975–8887, Vol. 25, No. 5, pp. 1-3, 2011
  30. Indra K Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, “Detection of Abnormal Masses using Divide and Conquer Algorithm in Digital Mammogram", International Journal of Emerging Sciences (IJES), ISSN 2222-4254, Vol. 1, No. 4, pp. 776-786, 2011
  31. Indra K Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, "Central Tendency of Intensity for Digital Mammogram Registration Comparative Analysis”, Journal of Current Computer Science and Technology, ISSN 2231-5411, Vol. 1, No. 6, pp. 329-339, 2011
  32. Indra K Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, “Artifact Suppression Homogenous Orientation of Digital Mammogram using Seeded Region Growing Algorithm”, International

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Journal of Computer Information Systems (IJCIS), ISSN 2229- 5208, Vol. 3, No. 4, pp. 32-38, 2011

33. Indra K Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, “Automated Digital Mammogram Segmentation for Detection of Abnormal Masses using Binary Homogeneity Enhancement Algorithm”, Indian Journal of Computer Science and Engineering (IJCSE), ISSN 0976-5166, Vol. 2, No. 3, pp. 416-427, 2011
34. Indra Kanta Maitra, **Sanjay Nag**, Samir K. Bandyopadhyay, “A Novel Edge Detection Algorithm for Digital Mammogram”, International Journal of Information and Communication Technology Research, ISSN 2223-4985, Vol. 2 No. 2, pp. 207-215, Feb-2012
35. Indra K Maitra, **Sanjay Nag** and Samir K. Bandyopadhyay, “Anatomical Segmentation of Digital Mammogram to Differentiate Breast Regions”, International Journal of Research and Reviews in Computer Science (IJRRCS), ISSN 2079-2557, Volume 2, Issue 6, pp. 1327-1330, 2011

### **Book Chapter Published**

1. **Nag, S.**, Basu, N., & Bandyopadhyay, S. K. (2017). Hybrid Approach towards Malaria Parasites Detection from Thin Blood Smear Image. In S. Bhattacharyya, A. Mukherjee, I. Pan, P. Dutta, & A. K. Bhaumik (Eds.), Hybrid Intelligent Techniques for Pattern Analysis and Understanding (1st ed., pp. 93-122). Boca Raton, FL: CRC Press.
2. **S.Nag**, N. Basu & S.K. Bandyopadhyay (2019). Application of Machine Intelligence in Digital Pathology Identification of Falciparum Malaria in Thin Blood Smear Image. In O. P. Verma, S. Roy, S. C. Pandey, & M. Mittal (Eds.), Advancement of machine intelligence in interactive medical image analysis (1st ed., pp. 65-97). Springer Nature.
3. PayaL Bose and **Dr. Sanjay Nag**, (2024) Healthcare Innovations in Smart Urban Settings, 978-81-974233-0-7
4. Dr. PayaL Bose and **Dr. Sanjay Nag** (2024) Recommender Systems in Course Selection for Smart Education Technology, 978-81-974233-2-1
5. Dr. PayaL Bose and **Dr. Sanjay Nag** (2024) Applications of Generative AI in Healthcare and Biotechnology, 978-81-974233-5-2
6. Sandip Roy and **Dr. Sanjay Nag** (2024) Synergy in Science and Engineering: An Integrative Approach, AkiNik Publications, 978-93-6135-058-0, <https://doi.org/10.22271/ed.book.2863>
7. **Dr. Sanjay Nag** (2025), A Comprehensive Review of the Internet of Medical Things (IoMT): Technologies, Applications, and Future Trends (In the Book - Advances in Sustainable Technologies: Emerging Trends and Applications), ISBN: 978-81-974962-2-6, DOI: 10.62823/RGRF/2025/9788197496226
8. Esha Mallick & **Dr. Sanjay Nag** (2025), Breast Cancer Identification using Logistic Regression: A Review (In the Book - Digital Design and Engineering in the Age of AI), E-book ISBN: 978-93-6233-668-2 Paperback ISBN: 978-93-6233-130-4, DOI: <https://doi.org/10.62906/bs.book.404>
9. **Dr. Sanjay Nag** (2025), Brain Cancer Detection Using Digital Image Processing: A Review (In the Book - Innovations Across Disciplines: Advancements in Engineering, Technology, and Sustainability), ISBN: 978-81-974427-5-9, DOI: 10.62823/Inspira/2025/9788197442759

### **Patent**

1. Sudipta Roy, Sanjay Nag, Prof. Samir Kumar Bandyopadhyay, Prof. Debnath Bhattacharyya, and Prof. Taihoon Kim, "Apparatus and method for detecting lesion in brain magnetic resonance image, and computer readable recording medium for implementing the method", United States Patent, Patent No. 20170143207, 2017.

### **Conference Paper**

1. Indra K Maitra, **Sanjay Nag**, Samir K Bandyopadhyay and Tai-Hoon Kim, "A Novel Approach to Detect Accurate Breast Boundary in Digital Mammogram using Binary Homogeneity Enhancement Algorithm", IEEE International Conference on Ubiquitous Computing and Multimedia Applications 2011, Hannam University, Daejeon, Korea
2. Suryabrata Das, Payal Bose, **Sanjay Nag**, Samir Bandyopadhyay, Shawni Dutta. (2024). Innovative Skin Disease Diagnosis: A Hybrid Learning Framework for Skin Cancer Detection. [Conference Presentation Done (26th Dec 2024)]. Conference Name: 5th International Conference On Computational Intelligence.