

CURRICULUM VITAE

SUBHAM BISWAS

+91-8617232080

s4subham@gmail.com ORCID ID -
0000-0002-4350-3463

102/1, WEST KODALIA, LICHUBAGAN, P.O.+P.S.- NEW BARRACKPUR,
NEW BARRACKPUR, DIST- NORTH- 24PARGANAS, PIN-700131, W.B,
INDIA



OBJECTIVE

To utilize my potential and talents to the utmost and contribute to the field of Mechanical & Production Engineering and lead professional service activities.

EDUCATIONAL CREDENTIAL

PhD (Engineering)

- **Institution:** Jadavpur University
- **Department:** Production Engineering
- **Area of Interest:** Laser Transmission Micro-machining
- **Research Field:** Nd:YAG Laser, Fiber Laser & Micro-machining
- **Fellowship:** DST PURSE Phase II, TEQIP Phase III
- **Tenure:-** 2015-2022

M. Tech (Production Engineering)

- **Institution:** Jadavpur University, Kolkata
- **Department:** Production Engineering
- **University:** Jadavpur University
- **Percentage of Marks :** 71.44%
- **Research Area:** Nd:YAG Laser Micro-machining
- **Tenure:** 2013-2015

B. TECH (Mechanical Engineering)

- **Institution:** Jalpaiguri Govt. Engineering College
- **Department:** Mechanical Engineering
- **University:** West Bengal University of Technology
- **SGPA:** 7.34
- **Tenure:** 2008-2012

HIGHER SECONDARY

- **Institution :** NewBarrackpur Colony Boys' High School
- **Board :** West Bengal Council of Higher Secondary Education
- **Percentage of Marks:** 61.43% (Science)
- **Year:** 2007

MADHYAMIK EXAMINATION

- **Institution:** NewBarrackpur Colony Boys' High School
- **Board:** West Bengal Board of Secondary Education
- **Percentage of Marks:** 71.25%
- **Year:** 2005

EMPLOYMENT HISTORY

Organization	Designation	Tenure
Jadavpur University	Research Scholar in the department of Production Engineering. As per university norms, take classes 6 periods a week in Under graduate and Post graduate level.	November 2015 to March 2022
Swami Vivekananda University	Assistant Professor Mechanical Engineering Department, Swami Vivekananda University, Barrackpur-Barasat Rd, Sewli Telinipara, Malir Math, Bara Kanthalia, West Bengal- 700121	April 2025 to till date

PUBLICATIONS

(A) JOURNALS (SCI Indexed)

1. **Biswas, S., Pramanik, D., Roy, N., Biswas, R. and Kuar, A.S., 2024.** An experimental investigation of micro-channels on transparent material using Nd: YAG laser transmission technique. **Optics & Laser Technology**, 175, p.110671.
2. **Biswas, S., Pramanik, D., Sen, A., Roy, N., Biswas, R. and Kuar, A.S., 2024.** A novel method for air assisted nanosecond pulsed fiber laser beam transmission micro-channelling on thick PMMA material. **Materials Science and Engineering: B**, 305, p.117433.
3. **Biswas, S., Mandal, K., Pramanik, D., Roy, N., Biswas, R. and Kuar, A.S., 2024.** Prediction of quality characteristics of micro-channels by deep learning algorithm during laser transmission ablation of PMMA. **Materials Today Communications**, 38, p.108142.
4. **Biswas, S., Mandal, K., Pramanik, D., Roy, N., Biswas, R. and Kuar, A.S., 2024.** Prediction and optimization of Nd: YAG laser transmission micro-channelling on PMMA employing an artificial neural network model. **Infrared Physics & Technology**, 137, p.105121.
5. **Pramanik, D., Sen, A., Biswas, S., Roy, N., Banerjee, N., Biswas, R. and Kuar, A.S., 2024.** Performance analysis of fiber laser micro-marking on aluminium 7075 alloy. **Journal of Molecular and Engineering Materials**. <https://doi.org/10.1142/S2251237324500047>.

6. **Biswas, S.,** N. Roy, R. Biswas, and A. S. Kuar. 2019. "Experimental Study of Partially Submerged Laser Transmission Channelling on Thick Poly(Methyl Methacrylate) (PMMA) Plate." **Lasers in Engineering (Old City Publishing)** 44 (4–6): 289–311.
7. **Biswas, S.,** Sen, A., Pramanik, D., Roy, N., Biswas, R. and Kuar, A.S., 2025. A parametric evaluation of fiber laser micro-channelling performance on thick PMMA in water medium. **Materials Science and Engineering: B**, 311, p.117776.
8. **Biswas, S.,** Pramanik, D., Roy, N., Sen, A., Biswas, R. and Kuar, A.S., 2025. Artificial intelligence based experimental investigation of underwater fiber laser transmission process during micro-channelling operation on PMMA. **Optics & Laser Technology**, 181, p.111593.
9. Sen, A., Pramanik, D., Banerjee, N., Roy, N., **Biswas, S.,** Ghosh, T.K. and Biswas, R., 2025. Surface characterization of fiber laser texturing on Hastelloy C-276 at different temperatures. **Optics & Laser Technology**, 181, p.111809.
10. **Biswas, S.,** Biswas, R., Das, M. C., Pramanik, D., Bhattacharyya, S., & Kuar, A. S. (2025). Explore AI based performance evaluation of underwater fiber laser transmission micro-channeling operation on PMMA material. **Infrared Physics & Technology**, 148, 105856.

(B) JOURNALS (Scopus Indexed)

1. **Biswas, S.,** Mandal, K., Roy, N., Biswas, R. and Kuar, A.S., 2020. Study on kerf width deviation of microchannel with various medium in laser transmission cutting by diode pump fiber laser. **Materials Today: Proceedings**, 26, pp.804-807.
2. Roy, N., **Biswas, S.** and Kuar, A.S., 2020. Pulsed Nd: YAG laser percussion microdrilling of SiC-30BN nanocomposite with compressed air as assisted medium. **Materials Today: Proceedings**, 26, pp.979-984.
3. **Biswas, S.,** Roy, N., Biswas, R. and Kuar, A.S., 2019. Experimental Investigation of Varying Laser Pass on Micro-channel Characteristics of Thick PMMA by Laser Transmission Micro-machining. **Materials Today: Proceedings**, 18, pp.3514-3520.

(C) BOOK CHAPTER

1. **Biswas, S.,** Roy, N., Biswas, R. and Kuar, A.S., 2019. Experimental investigations into underwater laser transmission micro-channeling on PMMA. Application of Lasers in Manufacturing; Lecture Notes on Multidisciplinary Industrial Engineering, Eds: Dixit U., Joshi S., Davim J., Springer, Singapore, pp. 209-229. DOI: https://doi.org/10.1007/978-981-13-0556-6_9.
2. Dutta, K., **Biswas, S.,** Biswas, R., Kuar, A.S. (2025). Experimental Investigation of Fiber Laser Micro-channeling on Copper. In: Sahoo, P., Barman, T.K. (eds) Advances in Materials, Manufacturing and Design. INCOM 2024. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-6667-3_41.
3. Sen, A., Banerjee, N., Samanta, A., Roy, N., Pramanik, D., **Biswas, S.** and Biswas, R. (2025). Multi-criteria Decision-Making for Laser Metal-Polymer Welding: A MACONT Approach. In: Sahoo, P., Barman, T.K. (eds) Advances in Materials, Manufacturing and Design. INCOM 2024. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-6667-3_44.

(D) CONFERENCE PUBLICATION**International: (Published)**

1. **Biswas, S.,** Roy, N., Biswas, R. and Kuar, A.S., 2016, December. Experimental Investigation on Underwater Laser Transmission Micro-channeling on PMMA. In Proceedings of 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016), Pune.
2. **Biswas, S.,** Roy, N., Biswas, R. and Kuar, A.S., Investigation on Depth of the Micro-Channels generated by Underwater Laser Transmission Micro-Machining. Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 10), December 07-09, 2017 at Indian Institute of Technology Madras, Chennai-600036, INDIA.
3. **Subham Biswas,** Sayantan Sinha Biswas, Debal Pramanik, Nilanjan Roy, Abhishek Sen, Ranjib Biswas, Arunanshu Shekhar Kuar, AI-enhanced experimental study of underwater fiber laser processing for micro-channelling in pmma. Proceedings of the 3rd International Conference on Mechanical Engineering (INCOM 2026), 08-10 January, 2026, Jadavpur University, Kolkata, India.
4. Sayantan Sinha Biswas, Dr.Debal Pramanik, **Dr.Subham Biswas,** Aniket Deb Roy, Dr.Nilanjan Roy, Process Optimization of MAG Welding on EN3B Mild Steel Using RSM. 4th International Conference on Engineering Design and Computing (ICEDC 2026), 27 - 28 February, 2026, Swami Vivekananda University Kolkata, India.
5. Sayantan Sinha Biswas, Avishek Samanta, **Dr.Subham Biswas,** Jishnunarayan Eshore, Dr. Kingshuk Mandal, Prodip Kumar Das, Experimental Parametric Investigation of TIG Welding for Mechanical Optimization of Similar Mild Steel Joints. 4th International Conference on Engineering Design and Computing (ICEDC 2026), 27 - 28 February, 2026, Swami Vivekananda University Kolkata, India.
6. Avishek Samanta,Biharilal Tudu, **Dr. Subham Biswas,** Dr. Md Ershad, Study of Fatigue and Low Velocity Impact on Carbon Fibre Composite Structure. 4th International Conference on Engineering Design and Computing (ICEDC 2026), 27 - 28 February, 2026, Swami Vivekananda University Kolkata, India.
7. K. Mandal, K. Dey, **S. Biswas,** S. Sarkar, S. Mitra, Role of conductivity in improving corner accuracy and surface finish during WEDM of AL 6061 alloy. 4th International Conference on Engineering Design and Computing (ICEDC 2026), 27 - 28 February, 2026, Swami Vivekananda University Kolkata, India.

(E) PATENTS

1. A Method Of Under Water Laser Beam Transmission Micromachining for Thick Transparent Material. (PUBLISHED)
2. A Method For Laser Beam Sawing. (PUBLISHED)

DISSERTATION RESEARCH

DEGREE: PhD (Engineering)

TITLE: Laser Transmission Micro-Machining of Transparent Material.

ADVISOR: Dr. Arunanshu Shekhar Kuar, Professor, Production Engineering Department, Dr. Ranjib Biswas, Associate Professor, Mechanical Engineering Department, Jadavpur University, Kolkata, India.

DEGREE: M.Tech in Production Management (Production Engineering Department)

TITLE: Experimental Investigation of Under Water Nd: Yag Laser Transmission Micro-Channeling on Polymethyl Methacrylate (PMMA).

ADVISOR: Dr. Arunanshu Shekhar Kuar, Professor, Production Engineering Department, Jadavpur University, Kolkata, India.

WORKSHOPS PARTICIPATED

1. National Workshop on Demystifying Pansophy, 2022, Jadavpur University, West Bengal, India.
2. Participated in Two Days National Workshop on Intelligent Micro Manufacturing and Business Analytics, Jadavpur University, Kolkata on 06.03.2020.
3. Participated in One Day National Workshop on Advanced Manufacturing Technology, Calcutta Institute of Technology, Kolkata on 17.04.2019.
4. Participated in Two Days National Workshop on Intelligent & Micro Manufacturing, Jadavpur University, Kolkata on 28.03.2019.
5. Participated in Two Days Workshop on Laser Technology for Tactical Communication, Jadavpur University, Kolkata on 12.12.2018.
6. One Day Workshop on Advanced Machining Processes, 2017, Jadavpur University, West Bengal, India.
7. One Day National Workshop on Hybrid Manufacturing Technology, 2017, Jadavpur University, West Bengal, India.
8. Participated in One Day National Workshop on Laser Material Processing Technology, Production Engineering Department, Jadavpur University, Kolkata, on 27.09. 2016.
9. Three Day National Workshop on Micromanufacturing, 2016, Jadavpur University, West Bengal, India.

SPECIAL INTEREST

1. Laser Beam Machining, 2. 3D Printing, 3. Electro Discharge Machining

AWARD & ACHIEVEMENT

- Qualified GATE Examination
- DST purse phase II
- TEQIP Phase III

PERSONAL DOSSIER

Father's Name: Suresh Chandra Biswas

Date of Birth: 05-01-1989

Sex: Male

Martial Status: Unmarried

Citizenship: Indian

Languages Known: Bengali, English, Hindi

Hobby: Travelling, Reading Books, Listening to Music.

Strength: Quick in adapting new technology, self confident, patient and positive attitude.

The declaration: I hereby declare that the particulars in the resume are correct to the best of my knowledge and belief.

Signature:

Subham Biswas

SUBHAM BISWAS