KOUSHIK MONDAL

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1. Objective:

To be associated with an organization that gives scope to apply my knowledge and skills to develop new technologies and to be a part of a team that dynamically works towards the growth of the organization**.**

2. Professional Experience:

- Serving as a **Principal Technical Officer** at **National Institute Technology Raipur** from **01.10.2026 till date**. UID: **4220260190** in Pay Level-14**.**
- Served as a **Principal Systems Engineer (joined as System Manager)** at **Indian Institute Technology (Indian School of Mines), Dhanbad** from **19.02.2016 to 30.09.2026**. Emp. ID: **1148** in Pay Level-13**.**
- Served as a **System Manager** at **Indian Institute Technology**, **Indore** from **01.10.2012 to 15.02.2016**. Emp. ID: **I1251046** in Pay Level-12**.**
- Served as a **Scientific Officer (System Administrator)** at **Indian Institute of Science Education and Research**, **Pune** from **01.01.2009 to 30.09.2012**. Emp. ID: **132** in Pay Level-10**.**
- Served as a **Computer System Administrator (T)** at **Supercomputer Education & Research Centre** in **Indian Institute of Science**, **Bangalore** from **01.08.2008 to 31.12.2008**. Emp.ID: **0248-8237.**
- Served as a **Research Fellow** with Teaching and System Administration (Linux Environment) activities in Kalyani Government Engineering College in the World Bank assisted TEQIP project of Govt. of India from **18.08.2006 to 31.07.2008**.

3. Educational Qualification:

Examination	**Institute**	**Board/ Council/ University**	**Title/Year**
Ph.D. in Computer Science	Department of Computer and System Sciences	Visva Bharati University	Title: Fuzzy Rule Guided Intelligent Image Segmentation Guide: **Prof.(Dr.) Paramartha Dutta** Degree Awarded August, 2013 Thesis Submitted November, 2012 Date of Registration July, 2008
Master of Computer Applications	Kalyani Government Engineering College	West Bengal University of Technology	2006
B.Sc. in Mathematics (Hons.)	Vidyasagar College	University of Calcutta	2002
Higher Secondary Examination (Science Stream)	Shambazar A.V. School	W.B.C.H.S.E.	1999
Secondary Examination (Gen. Stream)	Ramakrishna Vivekananda Mission	W.B.B.S.E.	1997

4. PhD Supervision:

- **Degree Awarded**: Supervised **Mr. Gaurav Mohindru**, for his PhD entitled "Different Analysis Techniques for IoT Data", degree awarded vide result No.: Exam/219905/Ex.Bd/2007-08 (Vol. III) dated 18.02.2026. [Joint Supervisor: Dr. Haider Banka]
- Supervising **Mr. Arkashis Das**, for his PhD entitled "Genuine Smiles, Greener Goods: How Smile Type and Intensity Shape Perceived Authenticity and Ethical Perceptions in Sustainable FMCG Packaging", registered as a research scholar with Department of Management Studies and Industrial Engineering of IIT (ISM) Dhanbad vide Ref. No.: AD/24DR0042/MS&IE/Acad dated 27.06.2025. [Joint Supervisor: Dr. Bibhas Chandra]

5. Technical Qualification:

Examination	Institute	Grade/ Percentage (%)	Year
Certified Master Trainer [TR170452] FTCP, FTNS and VET&Skills	ESSCI, NSDC MEPSC, NSDC	91.07% (FTCP) 90.73% (FTNS) 95.13% (Platform) 92% (VET&Skills)	2024
MATLAB Fundamentals MATLAB Onramp Deep Learning Onramp Machine Learning with MATLAB Deep Learning with MATLAB	MathWorks Academy	100% 100% 100% 100% 100%	2019
Industrial IP Advantage: Network Design for Industrial IoT for Industry 4.0	Cisco, Panduit and Rockwell Automation with GP Strategies	91%	2018
13th Outreach Programme on Basics of RS GIS and GNSS	IIRS, Department of Space, GoI	65.56%	2014
The RTI Act, 2005	CGG, Hyderabad and DoPT, GoI	C	2010
Diploma in Cyber Law	Asian School of Cyber Law and Govt. Law College, Mumbai	60%	2009
Oracle Certified Professional (DBA Track)	Oracle Inc.	98(PT) 91(DBA-II) 81 (DBA-I) 87 (SQL) 89.3%	2008
Red Hat Certified Engineer	RedHat Inc.	96.43%	2008
Cloud Computing Specialization			
A Tour of Google Cloud Hands-on Labs	Google Cloud and Coursera	100%	2022
Creating a Virtual Machine		100%	
Deep Learning Specialization			
Applications of AI for Anomaly Detection	NVIDIA Deep Learning Institute	100%	2021
Building Transformer-Based Natural Language Processing Applications		100%	
Fundamentals of Accelerated Computing with CUDA Python		100%	
Fundamentals on Deep Learning		100%	

Data Science Specialization			
R Programming	Johns Hopkins University (Coursera)	100%	2014
The Data Scientist's Toolbox		81%	
Getting and Cleaning Data		100%	
Exploratory Data Analysis		87.5%	
Statistical Inference		100%	
Reproducible Research		96.7%	
Regression Models		100%	
Practical Machine Learning		100%	
Developing Data Products		84.1%	
Network Analysis in Systems Biology	Icahn School of Medicine at Mount Sinai (Coursera)	93.2%	2015

6. Courses Taught:

a) Course no. and Title : NHSC508 Python Programming Essentials[NEP Course]
Level (UG/PG) : PG in 2025, 2026 [Winter] in HSS Department
Course material : Developed by Koushik Mondal [https:// people.iitism.ac.in/~koushik/NHSC508]

b) Course no. and Title : ESC503 MATLAB Programming for Numerical Computation
Level (UG/PG) : PG in 2019 [Monsoon] in ESE Department
Course material : Developed by Koushik Mondal [https://people.iitism.ac.in/~koushik/ESC503]

c) Course no. and Title : GLC72102 Python for Geo-Scientists and Engineers
Level (UG/PG) : PG in 2019 [Winter] in Applied Geology Department
Course material : Developed by Koushik Mondal [https://www.iitism.ac.in/~koushik/GLC72102]

d) Course no. and Title : CSM17101 Operating Systems
Level (UG/PG) : UG in 2018 [Monsoon] in CSE Department, IIT(ISM) Dhanbad
Course material : Developed by Koushik Mondal and Dr. Haider Banka [https://www.iitism.ac.in/~koushik/CSM17101]

e) Course no. and Title : Data Analysis with R in Department of HSS, IIT Indore
Level (UG/PG) : PG in 2015
Course material : Developed by Koushik Mondal

f) Course no. and Title : CS801B Soft Computing in Kalyani Govt. Engineering College
Level (UG/PG) : UG [One semester] B. Tech CSE in 2007 [Pre-PhD Experience]
Course material : Developed by Prof. (Dr.) Paramartha Dutta and Koushik Mondal

g) Course no. and Title : CS403 Software Engineering in Visva Bharati University
Level (UG/PG) : PG [One Semester] MCA in 2008 [Pre-PhD Experience]
Course material : Developed by Koushik Mondal

h) Course no. and Title : Soft Computing Lab in Kalyani University
Level (UG/PG) : UG [One Semester] B.Tech. CSE in 2007 [Pre-PhD Experience]
Course material : Developed by Koushik Mondal

7. Research Publication:

Patent

P1. **Submitted Patent (PSD/PAT/1938):** Prof. Arup Kr. Pal, Mr. Mahesh Chaurasia, Mr. Shukla Mondal, Prof. Hafizul Islam, **Dr. Koushik Mondal**, " Blockchain Integrated Verifiable Deep Inference Framework for Privacy-Preserving Edge-AI Based VSS Anomaly Detection", date of submission: 08.05.2026, O/o CGPDM, DIPP, MCI, Govt. of India, 2026.

P2. **Submitted Patent (PSD/PAT/1885):** Prof. Anik Goswami Prof. Pradip Kumar Sadhu, Prof. Prabhat Chandra Ghosh, Ms. Phularenu Das, Prof. Anirban Ghoshal, Prof. Arijit Baral, Prof. Nitai Pal, Mrs. Paromita Sadhu, Ms. Chitrangee Singh, Mr. Sagar Bhushan, Mr. Amit Kumar Singh, Mrs. Sonal Mishra, **Dr. Koushik Mondal**, " A hybrid renewable energy driven bidirectional dynamic and static wireless fast charging system for variable ground clearance and misalignment protected electric vehicles", date of submission: 24.03.2026, O/o CGPDM, DIPP, MCI, Govt. of India, 2026.

P3. **Submitted Patent (PSD/PAT/1767):** Prof. Pradip Kumar Sadhu, Mr. Sagnik Bhattacharya , Ms. Sweta Pallavi, Prof. Anik Goswami, Prof. Manish Kumar Jha, Mrs. Paromita Sadhu, **Dr. Koushik Mondal**, Mrs. Sonal Mishra, " Hybrid Green Energy based AC Power Propelled Smart Sailing Boat / Cruise Utilizing BIPV, FSPV & CPV for Saline of Polar Countries", date of submission: 16.12.2025, O/o CGPDM, DIPP, MCI, Govt. of India, 2025.

P4. **Submitted Patent (PSD/PAT/1759):** Prof. Pradip Kumar Sadhu, Prof. Anik Goswami, Mrs. Paromita Sadhu, Mr. Sagar Bhushan, **Dr. Koushik Mondal**, Mrs. Sonal Mishra, Mr. Amit Kumar Singh, " Hybrid Green Energy based DC Power Propelled Smart Sailing Boat / Cruise Utilizing BIPV & FSPV for Freshwater of Tropical Countries", date of submission: 11.12.2025, O/o CGPDM, DIPP, MCI, Govt. of India, 2025.

P5. **Published Patent [**202531130467 dated 23.12.2025**]:** Prof. Pradip Kumar Sadhu, Prof. Nitai Pal, Prof. Anik Goswami, Mrs. Paromita Sadhu, Prof. Anirban Ghoshal, Mr. Sagar Bhushan, Ms. Phularenu Das, Prof. Anindya Sinha, **Dr. Koushik Mondal**, Mrs. Sonal Mishra, " Development of Non-contact Solid State Lighting, Portable Battery Charging of Cap Lamps for Multi-seam and Sectoral Underground Mines", date of published: 02.01.2026, O/o CGPDM, DIPP, MCI, Govt. of India, 2026.

P6. **Granted Patent:** Debarka Mukhopadhyay, Suparba Tapna, **Koushik Mondal**, Balachandran Krishnan**,** Nabamita Mukhopadhyay, "A multi-layer memory enriched static memory system", granted patent no.:424058 date of grant: 04.03.2023 [Application No.: 202141039100 dated 29.08.2021] , O/o CGPDM, DIPP, MCI, Govt. of India, 2023.

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Ⓒ. Debarka Mukhopadhyay, Suparba Tapna, **Koushik Mondal**, "QCA architecture of a multilayer content addressable memory cell for superior processing speed", published with Registration No.: L-107385/202 dated 09.09.2021, Copyright Office, Govt. of India, 2021.

Journal

J1. Uma Prasad, Ramesh Dharavath, **Koushik Mondal**, Damodar Edla,, "Digital Twin Driven Approach for Precision Agriculture Using PSO-Optimized XGBoost Models for TOP crops", submitted in Applied Soft Computing Journal, 2026.

J2. Arkashis Das, Bibhas Chandra, **Koushik Mondal**, "Anthropomorphic AI in sustainable digital advertising: a SPAR-4 systematic review and TCCM research agenda", submitted in International Journal of Consumer Studies, 2026.

J3. Arkashis Das, Bibhas Chandra, **Koushik Mondal**, "AI Transparency And Consumer Judgments: A Meta-Analysis Of Disclosure And Explainability", published in Restitution Law Review (RLR), Early Access, Vol. 34 No. 2,pp. 1062-1083, Jul - Dec 2026, https://doi.org/10.65677/rlr.v34i2.364. [**2026 ABDC (A Category)]**.

J4. Dharavath Ramesh, Naela Rizvi, Srinivasa Rao P. C, Elankovan Sundararajan, **Koushik Mondal**, Gautam Srivastava, "Improved Chemical Reaction Optimization with Fitness based Quasi-reflection Method for Scheduling in Hybrid Cloud-Fog Environment", published in IEEE Transactions on Network and Service Management, pp. 653 – 669, 2023, doi: 10.1109/TNSM.2023.3299358. [**2023 IF – 4.7 Q1]**.

J5. Debarka Mukhopadhyay, Tanmay Chakraborty, Anirban Saha, **Koushik Mondal**, Roneeta Purkayastha, "Smart Mobile Device to Trace Moving Rogue Objects Utilizing Dynamic Source Dynamic Destination Tracking Algorithm", published in IETE Journal of Research, Taylor and Francis, pp. 5822-5829, 2023, doi:10.1080/03772063.2023.2173316, Print ISSN: 0377-2063. [**2023 IF –1.3 Q4].**

J6. Naela Rizvi, Dharavath Ramesh, Srinivasa Rao P.C, **Koushik Mondal**, "Intelligent salp swarm scheduler with fitness based quasi-reflection method for scientific workflows in hybrid cloud-fog environment", published in IEEE Transactions on Automation Science and Engineering, vol. 20, no. 2, pp. 862-877,April 2023, doi:10.1109/TASE.2022.3170549. [**2023 IF-5.9 Q1]**

J7. Ashes Banerjee, Srinivas Pasupuleti, **Koushik Mondal**, Mohaddeseh Mousavi, "Application of Data Driven Machine Learning Approach for Modelling of Non-linear Filtration through Granular Porous Media" published in International Journal of Heat and Mass Transfer (Elsevier), 2021. doi:10.1016/j.ijheatmasstransfer.2021.121650. [**2021 IF- 5.431 Q1]**

J8. Gaurav Mohindru, **Koushik Mondal**, Haider Banka, "Different hybrid machine intelligence techniques for handling IoT based imbalanced data" published in CAAI Transactions of Intelligence Technology, 6(4), 405– 416 (2021), 2021, doi:10.1049/cit2.12032. [**2021IF -7.985 Q1]**

J9. Gaurav Mohindru, **Koushik Mondal**, Haider Banka, "IoT and Data Analytics: A current review" published in WIRE's Data Mining and Knowledge Discovery, 10 (1002), pp.1-27, 2019. https://onlinelibrary.wiley.com/doi/abs/10.1002/widm.1341. [**2020 IF-7.250 Q1]**

J10. **Koushik Mondal**, "Application Design and Analysis of Different Hybrid Intelligent Techniques", published in International Journal of Hybrid Intelligent Techniques (IOS press), Vol. 13 Issue 3, ISSN 1448-5869, doi: 10.3233/HIS-160234, pp. 173-181, 2016.

J11. **Koushik Mondal**, Paramartha Dutta, Siddhartha Bhattacharyya, "Fuzzy Logic Based Gray Image Extraction and Segmentation", published in International Journal of Scientific and Engineering Research (IJSER), Volume 3, Issue 4, ISSN 2229-5518, pp. 325-338, 2012.

Book Chapter

B1. Gaurav Mohindru, **Koushik Mondal**, Paramartha Dutta, Haider Banka, "Mining Challenges in Large Scale IoT Data Framework - A Machine Learning Perspective" published in Advanced Data Mining Tools and Methods for Social Computing, Elsevier, ISBN: 9780323857086, pp. 239-259, 2022, doi:10.1016/B978-0-32-385708-6.00019-9.

B2. Gaurav Mohindru, **Koushik Mondal**, Haider Banka, "Machine Learning enabled cognitive approaches for handling IoT based Environmental Data" [Chapter 02] published in Cognitive Data Models for Sustainable Environment, pp. 19-43, Elsevier, ISBN: 9780128240380, 2021, doi: 10.1016/B978-0-12-824038-0.00008-0.

B3. **Koushik Mondal**, "Design Issues of Big Data Parallelism", published in Springer AISC Series, Third International Conference on International System Design and Intelligent Applications (INDIA 2016), ISSN 2194-5357, 2016, doi:10.1007/978-81-322-2752-6_20.

B4. **Koushik Mondal** "Different Visualization Issues with Big Data", published in "Smart Innovations, Systems and Technologies (SIST)" by Springer in International conference on Information and Communication Technology for Intelligent Systems (ICTIS 2015), ISSN: 2190-3018, in Ahmedabad, India on 28-29 November, pp. 555-562, 2015, doi: 10.1007/978-3-319-30927-9_55.

B5. **Koushik Mondal**, "A Novel Fuzzy Rule Guided Intelligent Technique for Gray Image Extraction and Segmentation" [Chapter 17], published in Image Processing: Concepts, Methodologies, Tools, and Applications, Volume 1-3, May 31, 2013, pp. 303-321, IGI Global edition, doi: 10.4018/978-1-4666-3994-2.ch017.

B6. **Koushik Mondal**, "A Novel Fuzzy Rule Guided Intelligent Technique for Gray Image Extraction and Segmentation" [Chapter 06], a book chapter published in the Handbook of Research on Computational Intelligence for Engineering, Science and Business, IGI Global edition, doi: 10.4018/978-1-4666-2518-1.ch006, pp. 163-181, 2012.

B7. **Koushik Mondal**, "Virtual Reality: a book Chapter in Computer Graphics, Multimedia and Animation" [Chapter 15], Volume 2, pp. 320-330, Published by Prentice Hall India (PHI) Learning Pvt. Ltd, 2010.

Conference

C1. Arkashis Das, Bibhas Chandra, **Koushik Mondal**, "How AI Transparency Shapes Consumer Judgments and Behaviour: A Meta-analysis of Disclosure, Explainability, and Trust", selected for presentation at the 11th PAN-IIM World Management Conference (WMC) 2026 hosted by the Indian Institute of Management Shillong, 2026.

C2. Souvik Mondal, Pradip Kumar Sadhu, Anik Goswami, **Koushik Mondal**, "IoT-Based Storage Battery Monitoring System for Mining Applications", selected for presentation in National Seminar on Batteries for Mining Sector - Challenges and the way forward at Directorate General of Mines Safety (DGMS) Dhanbad on 10 August, 2026.

C3. Phularenu Das, Pradip Kumar Sadhu, Shyam A B, Anik Goswami, **Koushik Mondal**, "An Overview of Wireless Power Transfer Technologies of Vehicular IoT Systems", in 2026 IEEE North-East India International Energy Conversion Conference and Exhibition second edition of the annual flagship conference of North-East India, jointly organized by the Dept. of Electrical Engineering, NIT Meghalaya, IEEE Guwahati Subsection, and the IEEE Industry Applications Society Student Branch Chapter, NIT Meghalaya during 12-14 June, 2026.

C4. Gaurav Mohindru, **Koushik Mondal**, Haider Banka, "Performance Analysis of Software Enabled Accelerator Library for Intel Architecture". In International Conference on Data Science, Machine Learning & Applications-2020, published in Lecture Notes in Electrical Engineering, Vol. 783. Springer, Singapore. , pp.:465-472, 2022, doi:10.1007/978-981-16-3690-5_40.

C5. Naman Tiwari and **Koushik Mondal**, "NCS based ultra-low power optimized machine learning techniques for image classification", published in the proceedings of IEEE R10 Symposium TENSYMP-2019, ISBN: 978-1-7281-0296-2, pp. 750-753, in Kolkata, India, during 07-09 June, 2019, doi: 10.1109/TENSYMP46218.2019.8971238.

C6. **Koushik Mondal**, "Big Data Parallelism: Issues in different X-Information Paradigms", published in Elsevier Procedia Computer Science, Vol. 50, Special Issue on Big Data, Cloud and Computing Challenges, ISSN 1877-0509, doi: 10.1016/j.procs.2015.04.028, pp. 395-400, 2015.

C7. **Koushik Mondal**, Paramartha Dutta, "Big Data Parallelism: Challenges in different computational Paradigms", published in IEEE Third International conference on Computer, Communication, Control and Information Technology (C3IT, 2015), DOI: 10.1109/C3IT.2015.7060186, ISBN: 978-1-4799-4446-0, in Hooghly, India during 07-08 February, 2015.

C8. **Koushik Mondal,** Paramartha Dutta, "Fuzzy rule based color image extraction ", published in the proceedings of IEEE Fourth International Conference on Advanced Computing & Communication Technologies (ACCT-2014), doi: 10.1109/ACCT.2014.90, ISBN: 978-1-4799-4910-6 in Haryana, India during 08-09 February, 2014.

C9. **Koushik Mondal**, Paramartha Dutta, Siddhartha Bhattacharyya, "Efficient fuzzy rule base design using image features for image extraction and segmentation", published in the proceedings of IEEE International Conference on Computational Intelligence and Communication Networks (CICN), doi: 10.1109/ CICN.2012.105 in Mathura, India on 3-5 November, 2012.

C10. **Koushik Mondal**, Paramartha Dutta, Siddhartha Bhattacharyya," Gray Image extraction using Fuzzy Logic", published in the proceedings of IEEE Second International Conference on Advanced Computing & Communication Technologies (ACCT), DOI: 10.1109/ACCT.2012.60 in Rohtak, India on 7-8 January, 2012.

C11. **Koushik Mondal**, Paramartha Dutta, Siddhartha Bhattacharyya, Biswajit Maiti, "An Enhanced FRB-based Noise-Immune Binary Image Segmentation Technique", published in the proceedings of AICTE-IEEE sponsored National Conference COCOSYS conducted by University Institute of Technology, Burdwan University, Burdwan, W.B., India, 2009.

C12. **Koushik Mondal**, Paramartha Dutta, Siddhartha Bhattacharyya, Biswajit Maiti, "A Noise Immune Binary Image Segmentation Using Enhanced Fuzzy Rule Base" published in proceedings of NAQC conducted by Government College of Engineering, Kolkata, W.B., India, 2008.

C13. **Koushik Mondal**, Paramartha Dutta, Siddhartha Bhattacharyya, "An Efficient Fuzzy Rule Based Binary Image Segmentation", published in the proceedings of IEEE International Conference RASIET conducted by IET, Alwar, Rajasthan, India, 2007.

C14. **Koushik Mondal**, "Virtual Reality: A New Horizon of Modeling Language", published in the proceedings of All India Students' Engineering Congress (AISEC) NIT Durgapur Chapter, conducted by Indian Society for Technical Education (ISTE), India, 2006.

C15. Anuradha Banerjee, Paramartha Dutta, Kinshuk Majumdar, **Koushik Mondal**, "Implementation of Mobile Adhoc Network as a Statistical Model with Round- Robin Scheduling Approach ", published in the proceedings of VISION-05 conducted by Government College of Engineering, Tirunelveli, TN, India, 2005.

C16. Anuradha Banerjee, Paramartha Dutta, Kinshuk Majumdar, **Koushik Mondal**, "Implementation of the Behaviour and Structure of the Multihop mobile environment as a Push-Down Automata and Birth and Death based Statistical Model", published in the proceedings of MOBICOMNET-2004, conducted by Vellore Institute of Technology, Vellore, TN, India, 2004.

C17. Anuradha Banerjee, Paramartha Dutta, Kinshuk Majumdar, **Koushik Mondal**, "A Birth and Death based Mathematical Model for Tracking Mobile nodes in a Multihop Environment", published in the proceedings of Business and Industry Group, Computer Society of India (CSI), India, 2004.

8. Book Writing/Technical Report:

a. **Koushik Mondal**, Paramartha Dutta, Siddhartha Bhattacharyya, authored book entitled "Data Modelling with R", will be published by Taylor and Francis LLC / CRC Press (in-press).

b. Siddhartha Bhattacharyya, N K Mondal, **Koushik Mondal**, J P Singh, K B Prakash, edited book entitled "Cognitive data models for sustainable environment", published by Academic Press, Elsevier, Paperback ISBN**:** 9780128240380, 2021.

c. **Koushik Mondal**, Manish Kumar, Chiranjeev Kumar, "Study Report on Executive Manpower requirement of CIL for Freezing the Method of Executive Manpower Planning of Underground and Opencast Mines – Software Development", submitted to Coal India Limited (CIL) against the consultancy project - CONS/3859/2018-2019 in April, 2020.

9. Certifications from IIT Kharagpur:

❖ Network Management Certification (4 Weeks)

- Linux Operating System- Installation & Management.
- Bootup and Shutdown Sequences.
- System Call Initialization.
- Local Area Network Setup.
- Packages Installation.
- Server Configuration.
- Third party software installation.
- Webmin & its utility.

❖ High Performance Parallel and Enterprise Computing (2 Weeks)

- Parallel computing architecture and Domain insights.
- HPC Stacks and Parallel Programming.
- OpenMPI, OpenMP and Infiniband issues.
- Performance Evaluation and Libraries.
- Core Cluster Configuration Issues.
- CUDA and OpenACC programming

10. Special Achievements:

- Selected as **Editorial Board Member**, Applied Soft Computing Journal for 2 years (2026-28).
- Visited University of Porto as **Erasmus Fellow** by the MOBILE23 project under the Erasmus International Credit Mobility Programme funded by the European Commission to visit to Universidade do Porto - Reitoria da Universidade do Porto (SRI), Portugal 2024.
- Successfully volunteered as **proctor** for the IEEEXtreme 15.0 programming competition in 2021.
- Received an appointment as a **Distinguished Speaker of the ACM** in ACM's Distinguished Speaker Program (DSP) in 2019 for 03 years.
- Selected as **Faculty Ambassador** in "AWS Educate Faculty Ambassadors" cohort by Amazon Web Services Inc. in 2019.
- Received **Intel Edge AI Scholarship** for "Basics of AI at the Edge with OpenVINO" foundation course jointly offered by Intel and Udacity in 2019.
- Best Paper Award from **Springer** in recognition of the Best Paper Presentation in INDIA 2016.
- Received Best IT Services Award from **Prof. CNR RAO** for IT Department, IISER Pune in Foundation Day ceremony in 2011.
- Selected Alumnus of the month by Asian School of Cyber Law for the Month of December 2010.
- Received an Appointment from Indian Institute of Technology, Bombay as a System Administrator in High Performance Computing Group in 2008 [Not able to accept the offer].
- **Gold Medal** recipient of Best Students' Project, awarded by Tata Consultancy Services (TCS), in recognition of excellence software project work in 2007.

- ❖ Best Project Paper Award Winner in the All India Students' Engineering Congress-2006 organized by ISTE Students' chapter, NIT Durgapur in 2006.
- ❖ Best Paper Award Winner in the MobiComNet-2004 organized by Vellore Institute of Technology, Vellore and Tata Consultancy Services (TCS), Chennai in 2004.
- ❖ First Prize Award Winner in Essay Writing organized by Ramakrishna Vivekananda Mission in 1996.
- ❖ Third Prize Award Winner in Extempore Speech organized by Ramakrishna Vivekananda Mission in 1994.

11. Professional Memberships:

- Selected as **Fellow** of The Institution of Electronics and Telecommunication Engineers **(IETE)**, Membership No.: F-500882 since 2021 (member since 2017).
- Selected as **Senior Member** of Institute of Electrical and Electronics Engineers **(IEEE)**, Membership No.: 92242555 since 2017 (member since 2012)**.**
- Selected as **Senior Member** of Association for Computing Machinery **(ACM)**, Membership No.: 0232185 since 2017 (member since 2012)**.**
- Selected as Life Member of Computer Society of India **(CSI)**, Membership No.: I1510628 since 2017.
- Selected as Member of Society for Industrial and Applied Mathematics (**SIAM**), Membership No.: 020012771 since 2012**.**
- Selected as Life Member of Systems Society of India **(SSI)**, Membership No.: LM 31963 since 2012.
- Selected as Member of Computer Science Teachers' Association **(CSTA)**, Membership No.: 7453188 since 2015.
- Selected as Life Member of Advanced Computing and Communications Society (**ACCS**), Membership No.: L358M1200348 since 2012.
- Selected as Life Member of The Indian Science Congress Association **(ISCA)**, Membership No.: L20775 in 2012**.**
- Selected as a Member of International Association of Computer Science and Information Technology **(IACSIT)**, Membership No.: 80342178 since 2011.
- Selected as a Member of International Association of Engineers **(IAENG**, Hong Kong), Membership No.: 105870 since 2010.

12. Administrative Responsibilities:

- ♦ Served as a Member of Expert Committee for selection of "Non-Teaching Group A, B, C Staff" for IIT (ISM) Dhanbad in 2023,2024, 2025,2026.
- ♦ Served as a subject matter expert in Emerging Areas stream in Student Learning Assessment(SLA) Project of All India Council for Technical Education (AICTE) New Delhi in 2021.
- ♦ Served as an external member of PhD Expert Examiner Committee for evaluation of PhD Thesis for JNTU, Hyderabad in 2020, 2022.
- ♦ Served as a Member of Expert Committee for selection of "Non-Teaching IT Staff" for IIIT Ranchi in 2019, 2020.
- ♦ Served as Convener, AI Research and Development Committee, IIT (ISM) Dhanbad since 2018-2020.
- ♦ Served as Head of the Centre (HoC) of Computer Centre during 2016-2018.
- ♦ Served as Institute Representatives (IR) for conducting online Advance JEE in 2018 and 2019.
- ♦ Served as Deputy Presiding Officer for conducting online GATE and JAM examinations in 2018.
- ♦ Served as a Member of Expert Committee for selection of Asst. Registrar for IIT (ISM) Dhanbad in 2018.
- ♦ Served as a Member of Expert Committee for evaluation of Detailed Project Report (DPR) for design, planning and execution of robust LAN (Wired & Wi-Fi) of NIT Jamshedpur in 2017.
- ♦ Served as Technical Manager for conducting online GATE and JAM examinations in 2017.

- Served as Technical Expert for online Advance JEE Test Centre vetting process for selection of centre(s) in 2017-18.
- Served as a Member of PhD Expert Examiner Committee for evaluation of PhD Thesis for Sant Gada Baba Amravati University, Amravati in 2016.
- Successfully conducted online examinations for Junior Engineer (Civil) & Accounts Clerk Cum Computer Operator for DC Office, Dhanbad on 31.07. 2016.
- Successfully conducted online examinations for Junior Engineer (Civil) & Accounts Clerk Cum Computer Operator for DC Office, Dhanbad during 07.01.2017 – 08.01.2017.
- Nominated Nodal Officer of IIT Indore for Enabling Wi-Fi campus under NMEICT-MHRD during 2014-2015.
- Represented IIT Indore and IIT (ISM) Dhanbad in Inter IIT Tournament in Cricket during 2012-2014 and 2017-18 respectively.
- Nominated Nodal Officer of IIT Indore for Redressal of Grievances to MHRD during 2013-2014.
- Nominated Nodal Officer of IIT Indore and IIT (ISM) Dhanbad for IIT Systems portal during 2013-2015 and 2017-18 respectively.
- Nominated as Convener, IT Committee of IISER Pune during 2009-2011**.**

13. Reviewer/Editorial Board Members:

- Reviewer in Journal of Complex & Intelligent Systems, Springer Nature.
- Reviewer in Journal of Innovations in Systems and Software Engineering, Springer Nature.
- Reviewer in Journal of SN Computer Science, Springer Nature.
- Editorial Board Member, International Journal on Intelligent Information Science and Systems, Springer.
- Reviewer in Journal of Computational Science, Elsevier.
- Reviewer in 2nd IEEE International Conference on Recent Trends in Information Systems (ReTIS-15).
- Reviewer in Journal of Pattern Recognition Research (JPRR).
- Editorial Board Member, International Journal of Ambient Computing and Intelligence (IJACI), IGI Global, Hershey, PA, USA.
- Reviewer in IEEE The International Conference on Computational Intelligence and Communication Networks (ICCICN 2014).
- Reviewer in Journal of Procedia Technology, Elsevier for International Conference on "Computational Intelligence: Modeling, Techniques and Applications (CIMTA- 2013).
- Reviewer in IEEE SMC 2012 Special Session on Soft Computing.
- Reviewer in International Journal of Artificial Intelligence and Knowledge Discovery.
- Reviewer in Handbook of Research on Computational Intelligence for Engg., Science and Business, IGI.
- Reviewer in COMMUNE Conference on Advancements in Communication & Computing Systems.

14. Trainings Organized:

- Successfully organized professional development programme on "Data Modelling for Artificial Intelligent Applications" along-with IBM India Pvt. Ltd. during 25th March – 06th April, 2019.
- Successfully organized training for MBA, M.Tech. (IE&M) on "Data Analysis with R" during March – June, 2019.
- Successfully organized 5 days training programme on "Python Programming Language" for revised curriculum of Computer Science/Informatics Practices for different Jawahar Navodaya Vidyalaya under Navodaya Vidyalaya Samiti, Government of India during 03rd December – 07th December, 2018.
- Successfully organized Summer Training on "Optimizing Management Information System using Web Technology (for university)" in Computer Centre, IIT (ISM) Dhanbad during 25th May – 24th June, 2018.

- Successfully organized Summer Training on "Different Data Analysis Techniques with R" in Computer Centre, IIT (ISM) Dhanbad during 15th May – 14th June, 2018.
- Successfully organized 1-day workshop on "Accelerated Computing - Driving the future of HPC & AI" with NVIDIA in IIT (ISM) Dhanbad on 07.12.2017.
- Successfully organized Summer Training on "Different Data Analysis Techniques with R" in Computer Centre, IIT (ISM) Dhanbad during 23rd May – 22nd June, 2017.

15. Projects Implemented in MCA:

➢ **In Industry:**

Project Name	**- Asset-Inventory Management**
Organization	- Sunrise Technologies, Kolkata
Project Details	- Developing a software module of Asset Inventory Management System of Royal Monetary Authority of Bhutan – Govt. of Bhutan.
Role	- Developer
Duration	- 6 Months
Operating System	- Windows XP
Languages & Tools	- J2EE architecture, Java, JSP, Servlet, Oracle9i.

➢ **In College:**

Project Name	- **Non-Immersive Virtual Reality**
Organization	- Kalyani Government Engineering College, Kalyani
Project Details	- Virtual Run through a virtually created world.
Duration	- 6 Months.
Operating System	- Windows XP
Languages & Tools	- VRML, VRML Pad.

16. Projects Involvement in SERC, IISc:

Project 1: Statistical Reporting on System & Software Usage

This project is developed to make the system administrator task easier. SERC has various Supercomputing Clusters and wide varieties of computational servers. There exist many classes of users who are utilizing these resources for research and course purposes. The users also use various software according their needs. The disk quotas are also allocated to the all forms of users according to their requirements. This project efficiently generates all these requirements and their up-to-date information with the help of the scripts. It also gives a vivid statistics regarding the system and software usage information. The same information is accessed dynamically and put into Webpages for all. The different types of views of the particulars are being generated according to the needs of the system administration analysis.

Project 2: Network Monitoring Tools

The main Aim is to monitor and report the network usage and performance. The designed intranet site provides information on networking parameters. The functions provided are:

- Network Monitoring with the help of **OpenView** and **SolarWinds** software and effectively used **PRTG** Traffic Grapher that is popular traffic analysis software for monitoring and classifying bandwidth usage.
- To check whether all network services (DNS, Proxy, and Intranet) are working correctly.
- To generate reports of the network usage with graph.

Project 3: Helpdesk and User Request Handling

The main aim is to provide to end-users up-to-date information regarding SERC facilities and the door-end solutions of the problems that they asked by phone or by helpdesk_serc mailbox. The solutions varies from the package installation related issues, desktop problems, network related issues to printing issues. SERC provides four networked-based printers (Colour HP DeskJet 1120C, Colour Laser Xerox Phaser 6200N, Colour HP Design Jet 500 Plotter, HP LaserJet 8100) which are widely used for faculty-members, students (PhD, M.Tech., M.Sc., etc.) and staffs of the Institution.

17. Projects Implemented/Ongoing:

Project Year 2024-25:

1. Name : **Procurement of 250 Desktop Computers**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 2.80 Crore
   Funding Agency : IIT (ISM), Dhanbad
2. Name : **Procurement of 200 Seating Workstations for Lab**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 45 Lakh
   Funding Agency : IIT (ISM), Dhanbad
3. Name : **Procurement/Renewal of Centralized Software**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 2.00 Crore
   Funding Agency : IIT (ISM), Dhanbad

Project Year 2023-24:

1. Name : **Procurement of 100 Desktop Computers**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 1.00 Crore
   Funding Agency : IIT (ISM), Dhanbad
2. Name : **Procurement of Audio Visual Devices**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 40 Lakh
   Funding Agency : IIT (ISM), Dhanbad
3. Name : **Procurement/Renewal of Centralized Software**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 1.20 Crore
   Funding Agency : IIT (ISM), Dhanbad

Project Year 2022-23:

1. Name : **Procurement of High-end Workstations**

Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 1.50 Crore
Funding Agency : IIT (ISM), Dhanbad

2. Name : **Procurement of Multifunction Printers**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 40 Lakh
Funding Agency : IIT (ISM), Dhanbad

3. Name : **Procurement/Renewal of Centralized Software**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 1.20 Crore
Funding Agency : IIT (ISM), Dhanbad

Project Year 2021-22:

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1. Name : **Procurement of 400 Desktop Computers**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 3.50 Crore
Funding Agency : IIT (ISM), Dhanbad

2. Name : **Procurement of High-end Workstations**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 1.50 Crore
Funding Agency : IIT (ISM), Dhanbad

3. Name : **Procurement of Multifunction Printers**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 40 Lakh
Funding Agency : IIT (ISM), Dhanbad

4. Name : **Procurement/Renewal of Centralized Software**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 1.20 Crore
Funding Agency : IIT (ISM), Dhanbad

5. Name : **Procurement of High-end Laptops**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 55 Lakh
Funding Agency : IIT (ISM), Dhanbad

Project Year 2020-21:

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1. Name : **All in One Computer Lab 2 – Capacity 160**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 2.50 Crore
   Funding Agency : IIT (ISM), Dhanbad
2. Name : **Setting up 11 Smart Classrooms with 2 Studios**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 2.50 Crore
   Funding Agency : IIT (ISM) Alumni Fund, Dhanbad
3. Name : **Setting up 20 Smart meeting rooms**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 40 Lakh
   Funding Agency : IIT (ISM), Dhanbad

Project Year 2019-20:

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1. Name : **All in One Computer Lab 1 – Capacity 160**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 2.50 Crore
   Funding Agency : IIT (ISM), Dhanbad
2. Name : **Procurement of Centralized Software**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 2.00 Crore
   Funding Agency : IIT (ISM), Dhanbad

Project Year 2018-19:

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1. Name : **Revamp and augmentation of Campus Wide Network**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 20.00 Crore
   Funding Agency : IIT (ISM), Dhanbad
2. Name : **Upgradation of Old Lecture Hall Complex as New Computer Centre**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 14.30 Crore
   Funding Agency : IIT (ISM), Dhanbad

Project Year 2017-18:

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1. Name : **Setting up Wired and Wireless facility in Central Library**
   Implementation Site(s) : IIT (ISM), Dhanbad
   Project Cost : Rs. 4.00 Crore
   Funding Agency : IIT (ISM), Dhanbad
2. Name : **Setting up Wired and Wireless facility Rosaline (G+11) Hostel**
   Implementation Site(s) : IIT (ISM), Dhanbad

Project Cost : Rs. 3.50 Crore
Funding Agency : IIT (ISM), Dhanbad

3. Name : **Setting up AIO Lab, Audio Visual and Video Conferencing facility**
Implementation Site(s) : IIT (ISM), Dhanbad Satellite Centre at IIIF Delhi
Project Cost : Rs. 1.50 Crore
Funding Agency : IIT (ISM), Dhanbad

Project Year 2016-17:

1. Name : **Establishment, Operation and Maintenance of Mini Data Centre**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 3.95 Crore
Funding Agency : IIT (ISM), Dhanbad
2. Name : **Setting up of Wired and Wireless facility in Type V and Type VI**
Implementation Site(s) : IIT (ISM), Dhanbad
Project Cost : Rs. 4.10 Crore
Funding Agency : IIT (ISM), Dhanbad

Project Year 2014-15:

1. Name : **IT HUB and Data Centre Building**
Implementation Site(s) : Simrol main Campus, IIT Indore
Project Cost : Rs. 10.50 Crore
Funding Agency : IIT Indore
2. Name : **Enabling Wi-Fi campus**
Implementation Site(s) : Simrol main Campus, IIT Indore
Project Cost : Rs. 55 Lakhs
Funding Agency : NMEICT, MHRD

Project Year 2013-14:

1. Name : **Modernization of Computer Centre**
Implementation Site(s) : IET, Simrol, PACL and Silver Springs Campuses, IIT Indore
Project Cost : Rs. 75 Lakhs
Funding Agency : IIT Indore

18. Projects completed at IISER Pune:

Project 1: BSNL Leased Line and Dedicated Data Circuit Installation and Commissioning

To provide 40 Mbps (Enhancible up to 200 Mbps) Internet leased line connectivity on uncompressed, unshared leased line (1:1) at IISER, Pune including installation, commissioning, testing & up keep of the complete link for entire one year of service period. The connectivity will be through dedicated Internet service. IISER Pune plying there services mainly from three different locations viz. Sai Trinity Building, NCL Innovation Park and New Campus. We have successfully installed 30 Mbps Dedicated Data Circuit between Sai Trinity and NCL Innovation Park and 30 Mbps Dedicated Data Circuit between NCL Innovation

Park and New Campus. All three places are seamlessly connected and using all facilities like Journal access, computing resources through this Dedicated Data Circuit.

Project 2: FOSS in Computer Lab

The goals of implementing Free and Open Source Software project are to help pupils (mainly MS-PhD students) learn the multi-user Linux environment. There exist many classes of users who are utilizing these resources for research and course purposes. The users also use various software's according their needs. The disk quotas are also allocated to the all forms of users according to their requirements. This project efficiently generates all these requirements and their up-to-date information with the help the scripts. The Information Technology Department has all computers (around 400+ nodes) on a three-year rotation cycle, to let students and staffs access the most up-to-date computer technology as feasibly possible. The upkeep of these computers, we maintained case- based AMCs with different vendors.

Project 3: Mail Server and DRBD

The IISER Pune has implemented Mithi Connect Server to provide internal and external mailing for users. Mithi Connect Server at IISER has been deployed in a centralized, multiple-server setup, and offers access to mails over LAN, WAN and Internet through webmail and POP/IMAP clients like Microsoft Outlook, Outlook Express etc. IISER has configured its own DRBD for mail server as primary-secondary manner that helped us to maintain 99.5% uptime of mail server. For increasing the throughput, IISER has implemented MX-server for maintaining the outbound traffic and relaying the mails over Internet in a seamless manner. Integration with Red Hat Directory Server for centralized authentication and user management; replication of directory information between RHDS and built-in LDAP server; support for backup of the mails on remote server, Hindi and other Indian languages; in-built security against spam, virus, unauthorized access etc. were among the key benefits for deploying Mithi mail server.

Project 4: Students' Academic Management (SAM)

In order to create centralized results, progress-reports and final degrees to the students', we have launched Students' Academic Management System (SAM) at IISER Pune This is basically a web-based solution of integrating all academics and results related matters. We used LAMP (Linux, Apache, MySQL, PHP) for developing the entire software as per our requirement. The SAM project, all associated files and manual have been developed under the supervision of Prof. B. K. Mathur, IIT Kharagpur for IISER Pune for their exclusive use, except those files which are in public domain under OGL. We are evolving the SAM as per our requirement. The then version was 5.

Project 5: Online Internal Resource Management through PhpScheduleIt

The goal behind the implementing PhpScheduleIt, which is an Open Source web-based reservation and scheduling system, is to allowing users to register and then place reservations on any kind of resources, such as conference rooms, machines, computers, etc inside IISER Pune. The administrative side allows complete control over user permissions, resource data, reservation data, and it has many configurable settings. The main feature includes: OS and database independent, Supports multiple languages, User database can be self-contained or authenticated through LDAP, Multiple schedules are supported with unique resources, Blackout times are easy to add and manage to restrict reservations, User permissions, Reservation minimum and maximum time limits, Mass email feature etc.

Project 6: Help-Desk management with Online Ticket Requesting System (OTRS)

The main aim is to provide to end users an up-to-date support and provide actual information regarding IISER Pune facilities and the door-end solutions of the problems that they asked by phone or by mail in different departments viz. Engineering, Admin, Purchase and IT. The Open Ticket Requesting System

(OTRS) is a web application that can be used with every HTML-compatible web browser. The web interface of OTRS does not use active web content to ensure that the system is usable with mobile phones or other mobile computers. To use OTRS, no special client operating system is necessary; only an HTML browser is needed. OTRS is separated into several components. The basic component is the OTRS framework that contains all central functions for the application and the ticket system via the web interface of the central OTRS framework. It is possible to install additional applications like a web mailer, a content manager, a file-manager, a web calendar and a tool to monitor system status information.

Project 7: Network Monitoring Tools

The main Aim is to monitor and report the network usage and performance. The designed intranet site provides information about network parameters to the system help desk. The functions provided are:

- Network Monitoring with the help of **OpenView** and **SolarWinds** software and effectively used **PRTG** Traffic Grapher that is popular traffic analysis software for monitoring and classifying bandwidth usage.
- To check whether all network services (DNS, Proxy, and Intranet etc.) are working correctly.
- To generate reports of the network usage with graph.

19. List of Seminar/Workshop Attended:

- Successfully completed online 'Demystifying Android App Security-Bootcamp 2026', conducted under the GOT-B initiative by C-DAC during Spetember, 2026.
- Successfully completed online 'Hands-on Skills on Cybersecurity Foundations', conducted under the GOT-B initiative by C-DAC during August, 2026.
- Successfully completed online 'Hands-On Penetration Testing with Kali Linux', conducted under the GOT-Basic initiative by C-DAC during July, 2026.
- Successfully completed Five-Day Online MATLAB/Simulink Workshop on 'AI+X: From Data Engineering to Agentic Intelligence'conducted by Mathworks in Collaboration with IEEE India Council WIE during 20 - 24 July, 2026.
- Successfully participated Two days' workshop on 'Edge AI Workflow Design and its Application for Mining Industries' organized by CIL Innovation and Incubation Centre, IIT(ISM) Dhanbad during 8-9 March 2025.
- Successfully participated one week FDP on 'AI for future Workforce – Beginner Level' jointly organized by CSE, NITTR Chandigarh and Intel during 28 April – 02 May 2025.
- Successfully participated one month course on 'Quantum Computing' jointly organized by CDAC Hyderabad and IIT Roorkee with the support of MEITY, GoI during 3-25 May 2025.
- Successfully participated summer school 2025 on 'Quantum Foundations' jointly organized by CDAC Kolkata and Bhaktivedanta Institute, Kolkata during 6-8 June 2025.
- Successfully completed online phase of 'ICAN Faculty Development Program on Cybersecurity' course jointly organized by IIT Bombay – Trust Lab, IIT Kanpur – C3iHub, IIT Madras – CyStar and ITEL Foundation during 16 – 30 June 2025.
- Successfully completed 'Secure Software Development Lifecycle Practices Professional' course jointly organized by CDAC Hyderabad and IIT Bhilai during 30 June - 11 July 2025.
- Successfully completed 'Symposium and workshop on UAS Electronics' organized by IIT Madras with the support of MEITY, GoI during 14 July - 19 July 2025.
- Successfully completed online training on 'Data Science in Logistics' organized by MSME- Technology Development Centre PPDC (on weekend – 15 hrs only), Agra during 6-20 September 2025.
- Successfully completed online winter school on 'Decentralized Trust and Blockchains' jointly organized by CyStar, IIT Madras and CODE, IIT Madras on 27th September 2025.
- Successfully completed 3 days' online workshop on 'Advanced Drone Technology' organized by Bharat Space Education Research Centre under ISTEM during 3 - 5 October 2025.

- Successfully attended online workshop on 'Digital Humanities in Practice: Tools, Methods and Applications (DHP 25)' jointly organized by Department of Humanities, Arts and Social Sciences and the Centre for Information, Technology, Research and Automation, NIT Calicut on 8th, 15th, 22nd and 23rd November 2025.
- Successfully attended 03 days international **INTERWEEK2024** organized by University of Porto, Portugal between 12.11.2024 to 14.11.2024 as a part of Erasmus Fellowship within the Mobile23 project framework.
- Successfully completed **Zscaler Zero Trust Associate (ZTCA) Certification** offered by Zscaler Academy during August 2024.
- Successfully attended 09 days online course on **NEP 2020 Orientation and Sensitization Programme** organized by IISER Pune during 18.04.2024 – 26.04.2024.
- Successfully attended 04 days online CIO Leader course on **Data Center Standards, Technologies and Operations Management** organized by Uptime Institute during May-June, 2023.
- Successfully attended 5 days national level online workshop on **Cyber Security Vulnerabilities & Safeguards** organized by NITTR Chandigarh under ATAL- AICTE Academy during 12 – 16 July, 2021.
- Successfully attended 5 days national level online workshop on **CUDA programming with C/C++ and Python** jointly organized by VIT-AP and NVIDIA Deep Learning Institute during 05 – 09 April, 2021.
- Successfully attended 5 days short-term course on **Signal Processing and Machine Learning Techniques for Data Driven IoT and Smartphone Health Monitoring**, jointly organized by IITBhubaneswar and University of Minnesota, USA under the aegis of Scheme for Promotion of Academic and Research Collaboration (SPARC), Ministry of Education, Govt. of India, during 26-30 March, 2021.
- Successfully participated online workshop on **Visible Light for Broadband Communications: Current Research and Standardization**, organized by IIIT Delhi Center of Excellence on LiFi under the aegis of India-EU ICT Standardisation Cooperation Project during 25-26 March, 2021.
- Successfully attended online workshop on **Accelerated Data Science**, organized by National Supercomputing Mission (NSM) Nodal Centre, IIT Kharagpur and NVIDIA under the aegis of the NSM, during 20-21 February, 2021.
- Successfully attended **8th ACM IKDD CODS and 26th COMAD** tutorials, organized by ACM India Joint International Conference on Data Science & Management of Data, during 02-04 January, 2021.
- Successfully attended Annual Symposium on Machine Learning, **IndoML 2020**, organized by IIT Gandhinagar and IIT Kharagpur, during 16-18 December, 2020.
- **Online Certificate course** on "A Two Day Webinar on IoT Security (WISE)", organized by CDAC, Hyderabad and SETS, Chennai, during 28-29 August, 2020.
- **Online E-Faculty training programme** on "Machine Learning Technologies for Social Media Analytics" (An Information Security Perspective), organized by IIT Guwahati ISEA Project Phase-II and CDAC, during 19-23 August, 2020.
- **Online Certificate course** on "Cisco Nexus Training: Go from Beginner to Advanced!" , organized by Udemy, completed on February 23, 2020.
- **One-week online certificate course** on "F5 Load Balancer Administrator", organized by Udemy, completed on February 07, 2020.
- **One-week Indo-French Workshop** on "Statistics and Artificial Intelligence for Data Science SAIDS 2020", organized by Indian Statistical Institute, Kolkata, January 13-17, 2020.
- **Introduction to AI in the Data Center-** Online course organized by NVIDIA Deep Learning Institute on 08 January, 2020.

- Successfully completed **Intel Edge AI Scholarship foundation course** (2.5 months) on "Basics of AI at the Edge with OpenVINO", organized jointly by Intel and Udacity started on December 16, 2019.
- **Two-week FDP** on "Sensor Networks and IoTs", organized by Department of CSE, IIT (ISM) Dhanbad during 20 – 29 June, 2019.
- **One-week Workshop** on "Data Analytics", organized by Interdisciplinary Statistical Research Unit, ISI Kolkata during 10 – 15 March, 2019.
- **Machine Learning with Python –** Online weekend certificate course (50 hours) jointly organized by IIT(ISM) Dhanbad and Ativitti AI Technologies Pvt. Ltd., 2018.
- **Awsome Day online conference – Essential AWS training** organized by Amazon Web Services on 31st October, 2018.
- **India Data Summit - One Day Workshop** jointly organized by IBM and India Today at Hotel Taj Palace, New Delhi on 11th September, 2018.
- **IEEE CIS – Intel AI Academy One Day Workshop** jointly organized by Intel and IEEE CIS Chapter, ISI Kolkata on 13th July, 2018.
- **IPv6 Hands on Workshop** organized by ERNET India with IIT Madras on 2nd May, 2014.
- **IMPECS Winter School** on "Data Analytics", jointly organized by School of Computer Science & IT, DAVV, Indore and Indo-German Max Planck Center for Computer Science during 15 – 18 November, 2013.
- **FAIR Computing: Accelerated Computing via GPU** organized by Bose Institute Indo-FAIR Coordination Centre in Bose Institute, Kolkata from 11 – 15 November, 2013.
- **Eduroam** workshop organized by ERNET India in New Delhi on 5th September, 2013**.**
- **GARUDA-NKN Partners Meet**, organized by CDAC in Bangalore during 25-26th July, 2013**.**
- Oracle DBA Hands-on Session on **Database Security in Oracle 11g** organized by Oracle in Pune on 15th March, 2012.
- **Innovating ICT for Social Revolutions** tutorial session in World Congress on Information and Communication Technologies (WICT-2011), organized by University of Mumbai and MIR Labs USA in Mumbai on 11th December, 2011.
- **Network Security Workshop** organized by Ingram Micro Limited, Mumbai on 15th November, 2011.
- **NULLCON DWITIYA, International Security and Hacking Conference** organized by NULL in Goa during 25 – 26 February, 2011.
- **CDC Workshop on "Development of Technology Commercialisation and Transfer Specialists"** organized by CDC, Ministry of Science and Technology in Pune during 17 – 19 February, 2011.
- **MATLAB and Simulink for Engineering Education** organized by MathWorks India in Mumbai on 20th August, 2010.
- **Connect XF: Advanced product Training program** organized by Mithi Software Technologies Pvt. Ltd. in Pune on 11th December, 2009.
- **HPC in Academia and Beyond:** a symposium organized by CDAC Pune and College of Engineering Pune on 14th November, 2009
- **IT Beyond 2010:** a state level seminar organized by University Institute of Technology, University of Burdwan on 20th August, 2007.
- **Spring School on** "Soft Computing: Advances and Applications (SSSCAA)" organized by Centre for Soft Computing Research of Indian Statistical Institute, Kolkata during March 13 – 16, 2007.
- **Mobile Computing and Network Security:** a state level seminar organized by RCC Institute of Information Technology, Kolkata on 9th March, 2007.

- **Recent Trends in Intelligent Computing:** National Conference organized by Department of Computer Science and Technology, KGEC, Kolkata during 17-19th November, 2006.
- **Workshop cum Intensive Practice School** on "Computer Networks and Network Administration in Linux" organized by Haldia Institute of Technology and sponsored by TEQIP of Govt. of India & TETCOS, Bangalore during January 4 – 8, 2006.

20. Research Projects/Consultancy/EDP:

#	Research/Consultancy Number and Title	Amount (INR)	Organization Name
1.	162/2025-26/ICSSR/RP/MN: Impact Assessment of PMKVY on Skill Acquisition and Entrepreneurial Development among Tribal Youth in Jharkhand: Systematic Barriers and Pathways as Co-PD	12,00,000 (Ongoing)	ICSSR Govt. of India
2.	CONS/7445E/2024-2025: MDP on Python Based Data Analytics for executives of BCCL as Co-CI	6,37,200 (Completed)	BCCL
3.	CONS/7430E/2024-2025: MDP on Python Based Data Analytics for executives of BCCL as Co-CI	11,68,200 (Completed)	BCCL
4.	EDP/5017/2018-19: Data Modelling for Artificial Intelligence Applications as Co-PI	1,67,000 (Completed)	EDP for All
5.	CONS/3859/2018-2019: Study of executive manpower requirement for next 10 years in CIL and its subsidiaries as Co-PI	1,07,58,750 (Completed)	Coal India Limited
6.	EDP/3600/2017-2018: Personal Communication and Optical Monitoring System for Coal Mines as Co-PI	1,51,101 (Completed)	Saoner Sub Area WCL
7.	EDP/3532/2017-2018: Conceptual Big Data as Co-PI	1,31,296 (Completed)	EDP for All

21. FDP Resource Person:

- Served as **Resource Person** in Leadership and Management Development Program for Elected Representatives of Department of Panchayati Raj, Government of Jharkhand in Indian Institute of Technology(Indian School of Mines), Dhanbad, India on 27.01.2026.
- Served as **Chief Guest** in PM-USHA Sponsored One Week Skill Development Programme on Mobile App Development in Maharaja Sriram Chandra Bhanja Deo (MSCB) University, Baripada-757003, Odisha, India during 19 – 25 January, 2026.
- Served as **Invited Speaker** in PM-USHA Sponsored three days National Sensitization Workshop on Cybercrime and Digital Arrest: Steering Law and Technology Towards Online Safety in Maharaja Sriram Chandra Bhanja Deo (MSCB) University, Baripada-757003, Odisha, India during 29 – 31 October, 2025.
- Served as **Resource Person** in EDP on Refresher Training Program for CIL Executives, in Department of Management Studies and Industrial Engineering, Indian Institute of Technology(Indian School of Mines), Dhanbad, India in different batches (Batch 5-9) during July – October, 2025.
- Served as **Invited Speaker** in Executive Development Program on Electrical Safety and Precautionary Maintenance in Mines (ESPMM-2025) in Department of Electrical Engineering, Indian Institute of Technology(Indian School of Mines) , Dhanbad, India during 04-08 August, 2025.
- Served as Resource Person in National Seminar on Innovative Horizons: AI's Role in Shaping the Future of Higher Education" in Govt. Women's College, Baripada, Maharaja Sriram Chandra Bhanja Deo University (MSCB University),Baripada-757003, Odisha, India during 25-26 June 2025.
- Served as **Invited Speaker** in National Conference on Advances in Machine Learning for Data Analytics (AMLDA-2025) in Maharaja Sriram Chandra Bhanja Deo (MSCB) University, Baripada-757003, Odisha, India during 07-08 May 2025.
- Served as **Session Co-Chair** for Technical Session in 6th IEEE International Conference on Recent Advances in Information Technology (RAIT-2025) at IIT (ISM) Dhanbad, India on 07.03.2025.
- Served as **Invited Speaker** in Technical Session on "IoT Based Approaches for Monitoring of Mines Safety" in Preventive Maintenance and Electrical Safety in Mines (PMESM), Department of Electrical Engineering , IIT(ISM) Dhanbad, India on 21.01.2025.
- Served as **Session Chair** (Online) for Technical Session in 6th International Conference on Computational Intelligence and Communications Networks organized by Rajnagar Mahavidyalaya, Birbhum, India during 11-12 December, 2021.
- Served as **Session Chair** (Online) for Technical Session in 1st International Conference on Innovations in Software Architecture and Computational Systems (ISACS 2021) in GNIT, India on 02.04.2021.
- Served as **Invited Speaker** for DST-SERB sponsored webinar entitled "Fake News and Image Detection on Social Media" organized by Vidyasagar University, West Bengal on 16.03.2021.
- Served as **Invited Speaker** under **ACM Distinguished Speaker Program** for One Week Online Workshop on Hands-on Training & Practices in Computational Chemistry in J C Bose University of Science and Technology, YMCA Faridabad on 25.11.2020.
- Served as **Resource Person** for a Online Faculty Development Program (FDP) on "Recent Advancements in Artificial Intelligence" held in the Department of the Computer Science and Engineering, Shri Vishnu Engineering College for Women(A), Bhimavaram, during 23.06.2020 - 27.06.2020.
- Served as **Invited Speaker** under **ACM Distinguished Speaker Program** for One-day E-symposium on Trends in Computing – "AI for society- ACM student's chapter June Symposium" in Christ (Deemed to be University) on 17.06.2020.
- Served as **Resource Person** for a five-day workshop on "Application of Python in Big Data, Natural Language Processing (NLP) and Social Network Analysis (SNA)" in Visva Bharati University, Santiniketan during 12.02.2020 -16.02.2020.
- Served as **Invited Speaker** under **ACM Distinguished Speaker Program** for ACM student's chapter January Symposium in RAIT, Mumbai on 24.01.2020.

- Served as **Resource Person** for one week Short Term Course on Intelligent Systems: Challenges, Techniques and Applications (ISCTA 2019) in NIT Durgapur, India on 18.10.2019.
- Served as **Invited Speaker** for AWS Educate Public Summit for India in JW Marriott, New Delhi on 05.09.2019.
- Served as **Resource Person** for Professional Development Programme on Data Modelling for Artificial Intelligence Applications in IIT (ISM) Dhanbad, India during 25.03.2019 – 06.04.2019.
- Served as **Resource Person** for one week Short Term Course on Recent Trends in Intelligent Systems Design (RTISD 2019) in NIT Durgapur, India on 12.01.2019.
- Served as **Resource Person** for one week Short Term Course on Advancement of Modern Technology in Engineering & Engineering Science (AMTEES 2018) in NIT Durgapur, India on 13.11.2018.
- Served as **Session Co-Chair** for Technical Session in 4th IEEE International Conference on Recent Advances in Information Technology (RAIT-2018) in IIT (ISM) Dhanbad, India on 17.03.2018.
- Served as **Invited Speaker** for one-week workshop on Machine Learning and Big Data Analytics in Aligarh Muslim University, Aligarh under the aegis of TEQIP-III during 04.03.2018-10.03.2018.
- Served as **Resource Person** for ten days FDP on Hybrid Computational Intelligence in RCCIIT Kolkata under the aegis of Electronics and ICT Academy, NIT Patna, India on 22.07.2017.
- Served as **Resource Person** for three days Short Term Course in Conceptual Big Data in IIT (ISM), Dhanbad, India on 09.06.2017.
- Served as **Resource Person** for five days PDP on Personal Communication and Optical Monitoring System for Coal Mines in IIT (ISM), Dhanbad, India on 10.02.2017.
- Served as **Resource Person** for three days workshop on Big Data and Cloud Computing in CSE Department of College of Engineering, Kolaghat, West Bengal, India on 26.09.2016.
- Served as **Resource Person** for two-week school on Internet of Things and Data Science jointly organized by Jadavpur University and Calcutta University, W.B., India on 05.09.2016.
- Served as **Resource Person** for Short Term Course on Data Storage and Processing Techniques in Cloud Computing in IIT (ISM), Dhanbad, India on 02.06.2016.
- Served as **Resource Person** for One-Week MHRD GIAN Workshop on Digital Humanities: Tools, Texts and Theory in School of Humanities and Social Sciences of Indian Institute of Technology, Indore, India during 19-25 March, 2016.
- Served as **Resource Person** for two weeks Workshop on Linux Overview and Linux System Administration in Computer Science and Engineering Department of Narula Institute of Technology (NIT), Agarpara, India during 01-13 July, 2015.
- Served as **Resource Person** for one-week Workshop on National Workshop on Research Design, Methodology and Proposal Writing in Christian Eminent College, Indore, India during 12-17 October, 2015.

22. Personal Information:

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23. Referee:

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Date: 09/10/2026
Place: Raipur

(Koushik Mondal)