

ISE NEWSLETTER

DEPARTMENT OF INDUSTRIAL & SYSTEMS
ENGINEERING, IIT KHARAGPUR

July 2024 – December 2024

The Department of Industrial and Systems Engineering (ISE) was established in 1973 as the Industrial Management Centre and later elevated to a full-fledged department in the year 1983. With strong focus in research and innovation, together with academic programs tailored to address the needs of the present day technological evolution, ISE has emerged as a unique academic institution in the country. ISE offers the following degree programs:

- **B.Tech (4-year)** - B. Tech in **Industrial Engineering**.
- **Dual Degree (5-year)** - B.Tech. in **Industrial Engineering** and M.Tech in **Industrial Engineering and Management**.
- **Dual Degree (5-year)** - B.Tech in **Manufacturing Science** and M.Tech in **Industrial Engineering and Management**.
- **Dual Degree (5-year)** - B.Tech in **Engineering Product Design and Manufacturing** and M.Tech in **Design and Quality Engineering**, with **Mechanical** or **Industrial Electronics** verticals.
- **M.Tech (2-year)** - M.Tech in **Industrial Engineering and Management**.
- **M.Tech (2-year)** - M.Tech in **Operation Research & Data Analytics**
- **M.Tech (2-year)** - M.Tech in **Supply Chain Management and Logistics** (Under process).
- Master of Science (MS).
- Doctor of Philosophy (PhD).



Head of the Department, ISE:
Prof. Jhareswar Maiti

Editor-In-Chief:
Dr. Abhishek Sharma
(Assistant Professor, ISE)

Associate Editor:
Mr. Satyajit Pradhan
(Jr. Laboratory Assistant, ISE)

Student Editor:
Mr. Uday Krishna Saha
(Research Scholar, ISE)



Department of Industrial and Systems Engineering, IIT Kharagpur, Kharagpur – 721302, West Bengal, India.
Phone: +91 (03222) 282271. email: jmaiti@iem.iitkgp.ac.in (Prof. J. Maiti, HOD, ISE)

Website: <http://www.iem.iitkgp.ac.in/>



Message from the Head of the Department

HOD's Desk

Greetings and welcome to the **Department of Industrial and Systems Engineering (ISE), IIT Kharagpur**. I am happy to share with you the departmental brochure. Over the period of past fifty years, our department has emerged as a knowledge hub to educate students, scholars and professionals in all the disciplines of ISE. Our faculty members bring a diverse range of academic and industry experience. Apart from teaching, they are engaged in cutting edge research and developments funded by various government bodies and private companies. We regularly publish research findings in reputed international journals and present our work in international conferences. Our outreach programs include workshops, short-term courses, industry training programs and conferences.

In the last 50 years the department has earned its reputation across the world for excellent teaching and research in the fields of Operations Research, Data Analytics, Logistics and Supply Chain Management, Quality Engineering, Information Systems and E-Business, System Thinking and Policy Planning, Human Factors Engineering and Ergonomics, Safety Analytics and Virtual Reality, and Healthcare Systems.

The ISE graduates regularly find employment in reputed large corporations. They also pursue higher education in renowned universities across the world. Our PhD program has produced many educators who are placed as faculty members in various IITs, IIMs, NITIE and other universities across India, and abroad.

The last year 2023 was a special year as ISE completes its 50 years of journey. We organized several events to celebrate the golden jubilee, in the form of short-term courses, lecture series, tech festival (OPTIMA) and an International Conference (ICONIEA 2024). We hope this will create better awareness about our department in the larger community of prospective students, scholars, faculty and practitioners. Come, join the ISE family and let us work together in pursuit of excellence to the service of the mankind.



Prof. J. Maiti

**Head of the Department,
Department of Industrial &
Systems Engineering,
IIT Kharagpur**

Faculty Achievement

Merit Paper Award

Prof. Anand Jacob Abraham

Prof. Anand Jacob Abraham from ISE was honored with the **Merit Paper Award** at the 2024 International Conference on Emerging Trends in Business Analytics and Management Sciences, held in conjunction with the 57th Annual Convention of the Operational Research Society of India (BAMS-ORSI 2024). The award recognized the impactful research presented in the paper titled " **Clearance Sale Models under Competition,**" presented and co-authored by **Sai Sundaresan**, UG student of ISE. This national-level recognition highlights their significant contribution to the field of Operations Research.

Best Paper Award

Prof. Anand Jacob Abraham and **Mr. Sai Narayan Sundaresan**, UG student of ISE received the **Best Paper Award** in the theme of **Industrial Engineering and Management at ICLST 2024**, organized by the Centre of Excellence in Logistics and Supply Chain Management, NIT Calicut. Their paper, titled " **Single Resource Capacity Control Model for Hidden City Ticketing,**" was recognized for its originality and relevance in addressing complex issues in airline pricing and capacity planning. This national-level accolade underscores their contribution to advancing research in the domain of Industrial Engineering.



Prof. Anand Jacob Abraham



Mr. Sai Narayan Sundaresan

Faculty Members of ISE in Editorial Boards

Prof. Biswajit Mahanty



Prof. Biswajit Mahanty has been appointed as an **Associate Editor** of **OPSEARCH**, a peer-reviewed journal published by Springer. His inclusion in the editorial board reflects recognition of his expertise and contributions to the field of Operations Research

Prof. Jitendra Kumar Jha

Prof. Jitendra Kumar Jha has been appointed to the **Editorial Board** of the **International Journal of Industrial Engineering: Theory, Applications, and Practice**. This role highlights his active engagement in advancing scholarly research and peer review in the field of Industrial Engineering.



Prof. Sarada Prasad Sarmah



Prof. Sarada Prasad Sarmah serves as an **Associate Editor** for two prestigious journals: **Computers and Industrial Engineering** published by Elsevier, and **OPSEARCH** published by Springer. These editorial roles reflect his significant contributions to the fields of industrial engineering and operations research.

Prof. Jharieswar Maiti

Prof. Jharieswar Maiti holds the position of **Associate Editor** for **Safety Science**, a leading journal published by Elsevier. This role acknowledges his expertise and impactful research contributions in the domain of safety and risk management.



Infrastructure Development and New Acquisitions

M.TECH. IN OPERATIONS RESEARCH AND DATA ANALYTICS



Department of Industrial & Systems Engineering
IIT Kharagpur



Starting from
Autumn 2024



Launch of New M.Tech Program

The Department of Industrial and Systems Engineering (ISE) launched a new two-year **M.Tech** program in **Operations Research and Data Analytics (ORDA)** started from Autumn 2024-25. The new program aims to cater to the growing need of highly skilled professionals in the area of data-driven decision making, harnessing the power of AI and Data Analytics.

IIT KHARAGPUR
DEPARTMENT OF INDUSTRIAL & SYSTEMS ENGINEERING

2-YEAR M.TECH. IN OPERATIONS RESEARCH AND DATA ANALYTICS

ELIGIBILITY

- ✓ 4 Year UG Degree in Engineering with GATE Qualification in ME/PIC/EC/EE/IN/CE/CH/AE/MN/IT/AG/IM or Sponsored

FEATURES

- ✓ Blend of concept development and hands-on training
- ✓ State of the art laboratory facilities
- ✓ Skill development for both industry and Research
- ✓ Year-long project in relevant domains

CURRICULUM FOCUS

- ✓ Core courses and lab sessions:
 - Operation Research
 - Machine Learning
 - Multivariate Statistics
 - Data Science
- ✓ Wide range of electives including:
 - Logistics and Supply Chain Management
 - Financial Engineering
 - Deep Learning
 - Safety Engineering and Analytics

Starting from Autumn 2024

Department of Industrial and Systems Engineering, IIT Kharagpur, Kharagpur - 721302, West Bengal, India.
Phone: +91 (03222) 282271, email: jmaiti@iem.iitkgp.ac.in
Website: <http://www.iem.iitkgp.ac.in/>

Infrastructure Upgrade



In November 2024, the department upgraded all labs—including ORDS, WSD, SAVR, Logistics, HUMICE, Product Development, DFAA, E-business, GTSES, and QDC—as well as classrooms, the seminar hall, and conference room, with the installation of 188 newly procured computer systems

Infrastructure Development and New Acquisitions

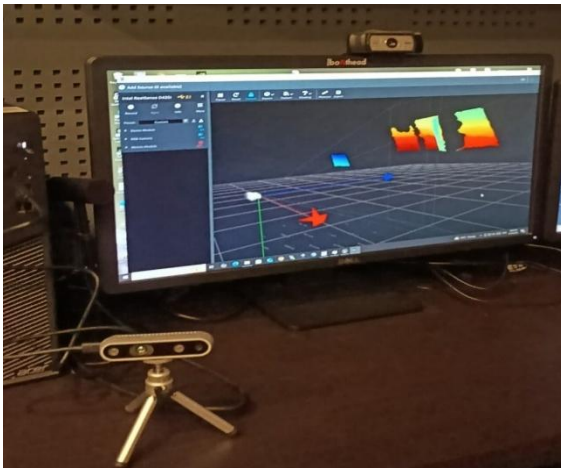
Advanced Equipment Procurement

New lab equipment such as the *Intel RealSense Depth Camera D435i* for the SAVR Lab and *Meta Quest 3* devices were added in November 2024 to support immersive learning and research.

Intel RealSense Depth Camera D435i

Meta Quest 3

Infrastructure Development



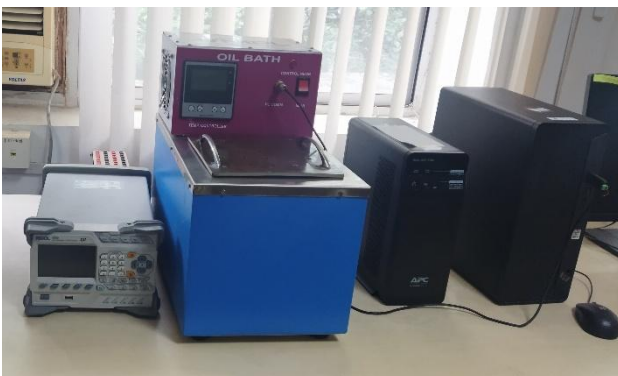
Software Enhancement

Motion Builder and other advanced software tools were added to the existing suite across departmental labs to support simulation and modeling needs.

Smart Lab Expansion

The **Quality Design and Control (QDC) Lab** was expanded with new setups to facilitate student learning on IoT applications in Quality Control and Data-Driven Quality Analytics.

Infrastructure Development



Research & Consultancy Projects

Development of SDSS Tools for Emergency / Disaster Management

Sponsor:

Kalpana Chawla Space Technology
Cell(KCSTC), IIT Kharagpur

Duration:

May 2021 – March 2025

Principal Investigator:

Prof. Goutam Sen, ISE Department



Prof. Goutam Sen

This project aims to develop Spatial Decision Support System (SDSS) tools to improve decision-making during emergency and disaster scenarios, with a focus on timely and effective response planning.

Mathematical Framework for Designing a Vehicle Scrappage Policy in India

Sponsor:

Science and Engineering Research Board
(SERB), DST, Govt. of India

Duration:

Jan 2023 – Jan 2026

Principal Investigator:

Prof. Sarada Prasad Sarmah, ISE Department



Prof. Sarada Prasad Sarmah

This research focuses on developing a mathematical and data-driven approach for formulating a sustainable and economically viable vehicle scrappage policy tailored to the Indian context.

Research & Consultancy Projects

Management of Inland Waterways Logistics Systems

Sponsor: Ministry of Shipping, Govt. of India | **Duration:** Jan 2020 – Aug 2025

Principal Investigator: Prof. Sarada Prasad Sarmah, ISE Department

The project investigates optimization models and management frameworks for enhancing the efficiency and integration of inland waterway logistics networks in India.

AI-Driven Resilient Semiconductor Supply Chain

Sponsor:

Apex Committee of SPARC

Duration:

Apr 2024 – March 2026

Principal Investigator:

Prof. Akhilesh Kumar, ISE Department



Prof. Akhilesh Kumar

This initiative seeks to strengthen the resilience of semiconductor supply chains using artificial intelligence, predictive analytics addressing disruptions and promoting supply chain sustainability and adaptability.

Digital Twin for Predictive Maintenance of Industrial Rotatory Equipment

Sponsor: IIT Kharagpur AI4ICPS Hub Foundation |

Duration: Feb 2024 – Feb2026

Principal Investigator: Prof. Akhilesh Kumar, ISE Department

The project focuses on developing digital twin technologies integrated with AI and IoT for real-time monitoring and predictive maintenance of industrial rotatory machinery. The project is a part of an AI & ML Technology Innovation Hub for Interdisciplinary Cyber-Physical Systems (ICPS) established by the Indian Institute of Technology Kharagpur under the aegis of the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), DST, Government of India.

Workshops and Webinar

SPARC-UKIERI Workshop on Semiconductor Supply Chain Resilience

Workshops and Webinar

As a part of the **SPARC-UKIERI** project **AI-Driven Resilient Semiconductor Supply Chain**, the Department of **Industrial and Systems Engineering (ISE)** at **IIT Kharagpur** successfully organized the workshop on Semiconductor Supply Chain Resilience from **November 11-12, 2024**. The event was inaugurated by **Prof. Karabi Das (Dean Outreach)**, **Dr. Alok Choudhary (WMG, University of Warwick)**, **Prof. J Maiti (HoD, ISE)**, **Prof B Mahanty (ISE)** and **Dr. Akhilesh Kumar (PI)**. The workshop covered current trends, key challenges, and opportunities in resilient semiconductor supply chains in India and the UK. Industry participants **Dr. Arnab Banerjee (Director, Supply Chain Analytics and AI, Micron Technology)**, **Mr. Rajat Khanna (Director, Global Foundries Engineering Ltd.)**, **Dr. Sanjeev Kumar (Head of Business Development, Renishaw Metrology Systems Ltd., Pune, India)** provided the industry perspective.

for achieving Semiconductor Supply Chain Resilience **Prof. B Mahanty** and **Dr. A Kumar** discussed the role of academia in the same. This workshop also had a panel discussion session themed India's Role in the Global Semiconductor Supply Chain: Challenges and Opportunities. In this workshop, **54 participants** benefited from insightful discussions and knowledge sharing



Workshops and Webinar

Workshops and Webinar

Workshop on advanced research topics in Industrial Engineering and Economics:

The Department of **ISE** invited **Prof. Anil Bera** to share his insights on advanced research topics in **Industrial Engineering and Economics**. He delivered an insightful and informative lecture on **"Three Score and 15 Years (1948-2023) of Rao's Score Test: A Brief History"** on **4th December 2024** at the ISE department. He is currently working as Professor of Economics in the **University of Illinois at Urbana-Champaign (UIUC)**, Illinois, United States. He received a B.Sc. from **Calcutta University** in 1975 in Statistics (**First Class**), a master's degree from **Indian Statistical Institute** in 1977 in Econometrics and Planning (**First Class**), and a Ph.D. in 1983 from **Australian National University**. He has contributed to the development of a number of test statistics, such as **Jarque-Bera test** for normality and **Bera-McAleer's test** for linear and **log-linear models**.



Prof. Anil Bera

(Professor of Economics in the University of Illinois at Urbana-Champaign, USA)

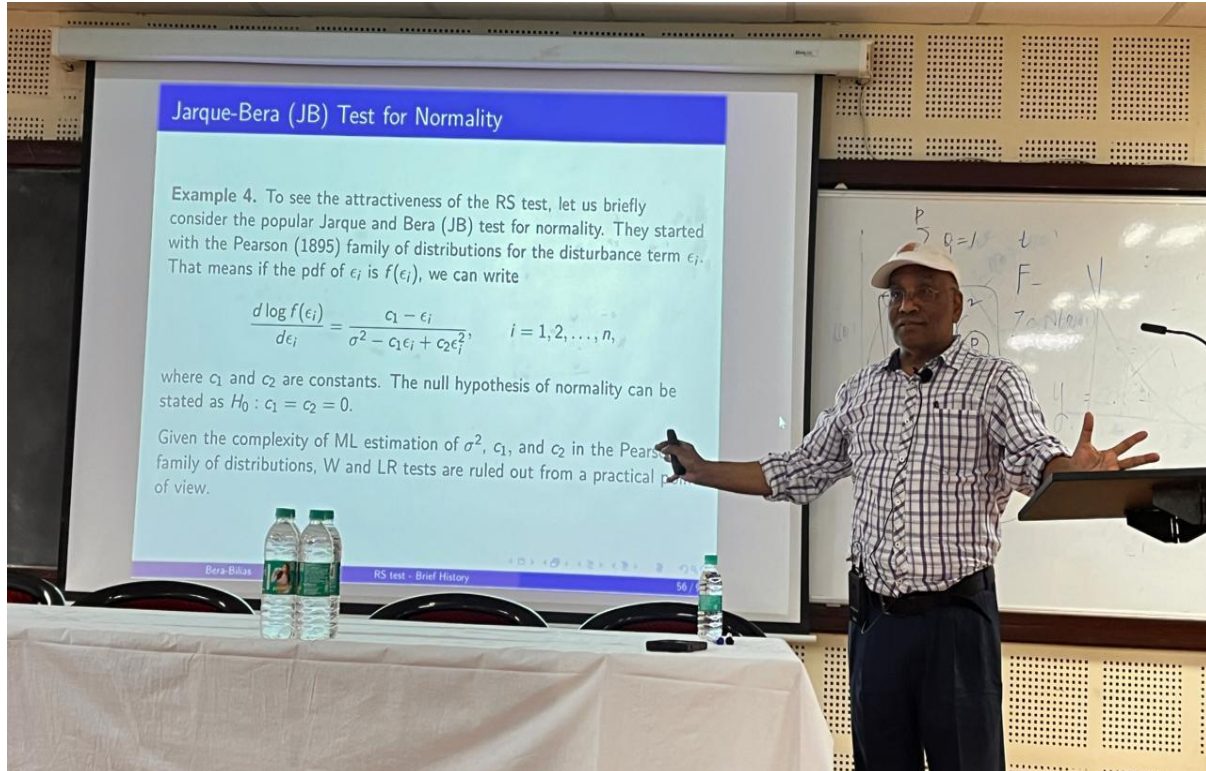


Workshops and Webinar

Workshops and Webinar

Workshops and Webinar

His book ***“Financial Econometrics and Empirical Market Microstructure”*** introduces novel approaches for stress-testing and reviews methodology for mortgage econometrics. His current research includes ***Spatial Statistics, Econometrics, Testing Under Misspecified Models, History of Statistics & Econometrics***. Dr. Bera established a Free School for the needy children in his village under ***A. Bera Center for Development and Education (ABCDE)*** in January 2020. ABCDE now, as of November 2024, has ***80+ students and 10 faculty members***.



Teachers' Day

Teachers' Day 2024

On 5th September 2024, the **ISE Department at IIT Kharagpur** celebrated Teachers' Day with great joy and respect. The celebration started with Saraswati Vandana, beautifully sung by our students, which created a peaceful and respectful atmosphere. After the prayer, students welcomed their beloved faculty members with tokens of appreciation. The event became even more lively when **Prof. Sayak Roychowdhury** and **Prof. Subhojit Sidhanta**, along with our PhD students **Sourav**



Bagchi and **Rittik Dash**, performed songs with a guitar. After the musical performance, senior professors of the department shared their thoughts about the importance of teachers and encouraged us to keep learning and growing.

Teachers' Day



Teachers' Day



Teachers' Day

Teachers' Day 2024

The event also highlighted the department's culture of excellence and collaboration, where teachers not only impart knowledge but also inspire students to take on real-world challenges in areas such as supply chain, quality, safety, and process excellence. As part of the celebration, students organized cultural performances and shared personal anecdotes, further strengthening the sense of unity and belonging within the department. The presence of distinguished faculty members,



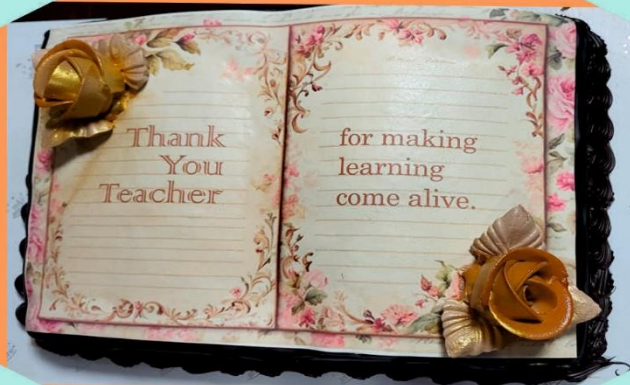
many of whom have received national and international recognition for their research and teaching, underscored the high standards upheld by the department.

Teachers' Day in the ISE department served as a reminder of the vital role educators play in nurturing talent and fostering an environment of continuous learning and innovation. The event concluded with a renewed commitment from both students and faculty to uphold the values of mentorship, academic excellence, and service to society, which are at the heart of IIT Kharagpur's mission.



Teachers' Day

*Memorable Moments of
Teaches' Day 2024*



Student Spotlight

Inter IIT

Mr. Gnaneshwar Munoth (22IM30013), a Third year B-Tech student of **Industrial and Systems Engineering** and a resident of LLR Hall, showcased exceptional athletic performance in **INTER IIT 2024**. He secured a **Silver medal** in the 400m hurdles and a **Gold medal** in the 4x400m relay, demonstrating his versatility and dedication. As the Vice-Captain of the IIT Kharagpur Athletics Team for **INTER IIT 2024**, Gnaneshwar played a pivotal role in the team's success. He has been announced as the Captain of the **IIT Kharagpur Athletics Team** for the upcoming academic year (2024-2025). Additionally, he was honored with the prestigious Individual Cup (IC) in the **General Championship securing 5 Gold medals and 1 Bronze medal**, conducted by the Gymkhana at IIT Kharagpur for the **year 2023-2024**, recognizing his outstanding contribution and achievements in athletics.

Gnaneshwar Munoth



ISE Student

ISE Student

Student Spotlight

Vista & DoMS 2024

Madhav Agarwal

Mr. Madhav Agarwal (23IM30011), a second year B-tech student of Industrial and systems Engineering Department. He secured 1st position in data analytics case competition of IIM Bangalore -Vista 2024 Data Beyond Boundaries. His team "Machine Churning" tackled a challenging EdTech problem for Vidya Vigyan, an Indian startup, by developing machine learning models and integrating Generative AI to predict course completion rates and provide actionable insights, recommendations and strategies beyond traditional ML models. He also secured the 2nd position in the Fynergy Finance Case competition at the annual business fest of Indian Institute of Technology, Madras, organized by DoMS, IIT Madras. His team "BigShorts" tackled questions on improving financial ratios, restructuring capital, understanding regulatory landscapes, and formulating regulatory framework surrounding the derivatives trading market in India.



ISE Student



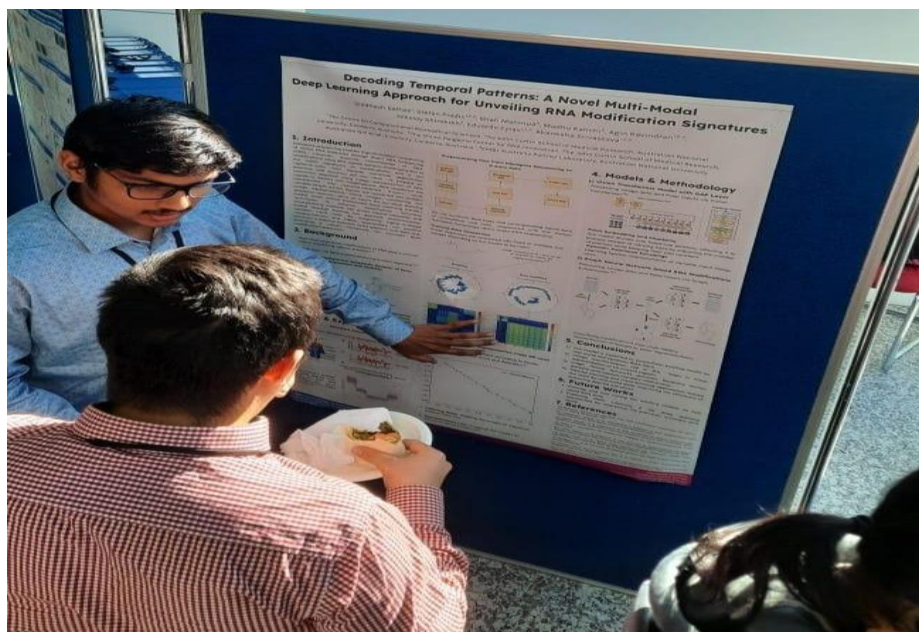
Student Spotlight

Future Research Talent Award

Mr. Siddhesh Ashish Salfale

(21IM30041), a Third year B-Tech student of **Industrial and Systems Engineering Department** stands out as an undergraduate researcher and has been one among the 70 students from India awarded the **Future Research Talent Award by the Australian National University, Canberra, on 22nd July 2024**, for conducting cutting-edge research in Australia and collaboratively contributing and working for medical research projects in Australia. Siddhesh has been one of the research contributors in the **John Curtin School of Medical Research at the Australian National University, Canberra**, in the Center for **Computational and Biomedical Science with the Computational RNA Group** under the guidance of **Prof. Eduardo Eyras** and **Dr. Akanksha Srivastava**. Siddhesh demonstrated unparalleled technical and academic mastery in the realm of Medical AI and cancer genomics.

Siddhesh Ashish Salfale



ISE Student

Student Spotlight

As an outcome of this work, he published and presented a paper, ***“Decoding Temporal Patterns: A Novel Multimodal Deep Learning Framework for Unveiling RNA Modifications in Cancer,”*** at the ***AlxBIO: Symposium for Computational Biology, Biomedicine, Artificial Intelligence, Australia, July 2024***, and won a Best Paper award as the only undergraduate researcher among all the graduate international researchers. He is also among the top 10

students from ***IIT Kharagpur*** and the only one from the ***Department of Industrial and Systems Engineering*** to receive the ***India AI Fellowship grant*** for his Bachelor thesis under the ***India AI Mission*** by the ***Ministry of Electronics and Information Technology, Government of India***. He also presented his Explainable AI in cancer medicine work and won 3rd Best Paper Award at the ***IEEE Symposium for Computational Intelligence, Trondheim, Norway, 2025***. ***He has been awarded and selected for California Institute of Technology - Caltech SURF Program 2025 for summers 2025 for the duration of 3 months.*** Siddhesh aims to exemplify ***generation of visionary researchers, committed to reshaping the landscape of artificial intelligence, computational biology, and biomedicine***. His journey so far is not just impressive—it is ***transformative***, making him a major contributor to watch in the global research ecosystem



Publication Watch

Below is the list of publications appeared in journals and conference proceedings from the Department of ISE in 2023-2024 (as of July to December 2024).

1. Sahil; Sarmah S.P.; Nayak N. .(2024). What affects consumer's participation in vehicle scrappage programmes? An empirical study on scrapping intentions: Journal of Cleaner Production,483,144254.
2. Sarkar P.; Khanapuri V.B.; Tiwari M.K.(2024). Strategic decision-making for sustainable production and distribution in automotive industry: a machine learning enabled dynamic multi-objective optimization: International Journal of Production Research
3. Pant P.; Vishal H.; Sarmah S.P. (2024). Inventory holding of firms during the COVID-19pandemic: a data-driven analysis of the manufacturing industry: International Journal of Services and Operations Management,48,1.
4. Sahoo S.; Mukane P.; Maiti J.; Tewari V.K. (2024). A framework for process risk assessment incorporating prior hazard information in text mining models using chunking: Process Safety and Environmental Protection,189.
5. Das S.; Maiti J. (2024). Assessment of cognitive workload based on information theory enabled eye metrics: Safety Science,176,106567.
6. Gupta S.; Vasu K.; Maiti J.; Kumar A. (2024). Health States Estimation and Prediction of Failure Occurrence Time of Rolling Element Bearing Using Hidden Markov Model: Lecture Notes in Networks and Systems,1076,LNNS.
7. Sahoo S.; Maiti J.; Tewari V.K. (2024). A framework to model contractors' hazard and risk exposure at process plants using unsupervised text mining: Process Safety and Environmental Protection,183.
8. Das S.; Khanwelkar D.R.; Maiti J. (2024). A semi-automated coding scheme for occupational injury data: An approach using Bayesian decision support system: Expert Systems with Applications,237,121610.
9. Dash A.; Sarmah S.P.; Tiwari M.K.; Jena S.K.(2024). Cybersecurity investments in supply chains with two-stage risk propagation: Computers and Industrial Engineering,197,110519.
10. Kar B.; Jenamani M(2024). Optimal multimodal multi-echelon vaccine distribution network design for low and medium-income countries with manufacturing infrastructure during healthcare emergencies: International Journal of Production Economics,273,109282.
11. Tewari R.C.; Routray A.; Maiti J.(2024). State-of-the-art radar technology for remote human fall detection: a systematic review of techniques, trends, and challenges: Multimedia Tools and Applications,83,29.

Publication Watch

12. Bagchi S.; Jenamani M.; Routray A. (2024). A Probabilistic Framework for Missing Value Estimation in Multivariate IoT Data During Reefer Container Monitoring: IEEE Transactions on Industrial Informatics,20,11.
13. Sahoo S.; Maiti J.; Tewari V.K(2024). A framework to model contractors' hazard and risk exposure at process plants using unsupervised text mining: Process Safety and Environmental Protection,183.
14. Bagchi S.; Jenamani M.; Routray A. (2024). A Novel Data Transformation for Improving Predictive Accuracy of Online Missing Value Imputation During Reefer Container Monitoring: IEEE Sensors Journal,24,22.
15. Das S.; Khanwelkar D.R.; Maiti J. (2024). A semi-automated coding scheme for occupational injury data: An approach using Bayesian decision support system: Expert Systems with Applications,237.
16. Dash A.; Sarmah S.P.; Tiwari M.K.; Jena S.K.; Glock C.H. (2024). Cybersecurity investments in supply chains with two-stage risk propagation: Computers and Industrial Engineering,197,110519.
17. Nayak N.; Sarmah S.P.; Jenamani M. (2024). A shippers' perspective multimodal freight transportation analysis considering shallow-draft inland waterways: Computers and Industrial Engineering,187,109793.
18. Dash R.; Jenamani M. (2024). Outlier Resilient Online Multivariate Change Point Detection Using Subsequence Divergence Estimation in Sensor Data Streams: IEEE Sensors Journal,24,23.
19. Ghosh T.; Parappan M.F.; Jenamani M.; Routray A.; Singh S.K. (2024). Unveiling the Subsurface Faults in Indian Krishna Godavari Basin: A Domain Adaptation Approach: IEEE Transactions on Geoscience and Remote Sensing,59,29009.
20. Mitra R.; Dongre A.; Dangare P.; Goswami A.; Tiwari M.K. (2024). Knowledge graph driven credit risk assessment for micro, small and medium-sized enterprises: International Journal of Production Research,62,12.
21. Kakde S.T.; Roychowdhury S.; Bhosale A.T.; Maiti J.(2024). CPAN Chart: A Novel Customer Perception Analysis System Using Natural Language Processing and Attribute Control Charting: IEEE Transactions on Engineering Management,71.
22. Sarkar P.; Khanapuri V.B.; Tiwari M.K.(2024). Strategic decision-making for sustainable production and distribution in automotive industry: a machine learning enabled dynamic multi-objective optimization: International Journal of Production Research.

Publication Watch

23. Pant P.; Vishal H.; Sarmah S.P(2024). Inventory holding of firms during the COVID-19 pandemic: a data-driven analysis of the manufacturing industry: International Journal of Services and Operations Management,48,1.
24. Datta D.; Jenamani M.; Routray A.; Singh S.K. (2024). Enhancing Lithofacies Interpretation in Well Logs with Graph-Based Feature Extraction: IEEE Geoscience and Remote Sensing Letters,3003005.
25. Dey A.; Jenamani M.; De A. (2024). An Unsupervised Deep Learning Model for AspectRetrieving Using Transformer Encoder: Lecture Notes in Networks and Systems,1017LNNS. 32. Datta D.; Jenamani M.; Routray A.; Singh S.K. (2024). Enhancing Lithofacies Interpretation in Well Logs with Graph-Based Feature Extraction: IEEE Geoscience and Remote SensingLetters,3003005.
26. Gupta S.; Vasu K.; Maiti J.; Kumar A. (2024). Health States Estimation and Prediction of Failure Occurrence Time of Rolling Element Bearing Using Hidden Markov Model: Lecture Notes in Networks and Systems,1076LNNS.
27. Tewari R.C.; Routray A.; Maiti J. (2024). State-of-the-art radar technology for remote human fall detection: a systematic review of techniques, trends, and challenges: Multimedia Tools and Applications,83,29.CY
28. Das, S., Khanwelkar, D. R., & Maiti, J. (2024). A semi-automated coding scheme for occupational injury data: An approach using Bayesian decision support system. Expert Systems with Applications, 237, 121610.
29. Nayak, N., Sarmah, S. P., & Jenamani, M. (2024). A shippers' perspective multimodal freight transportation analysis considering shallow-draft inland waterways. Computers & Industrial Engineering, 187, 109793.
30. Nair, R. B., Abraham, A., Kumar, K. R., & Sridharan, R. (2024). Optimal pricing decisions of centralized dual-channel supply chains in a duopoly: a study on the influence of competition structure. Sādhana, 49(1), 1-20.
31. Sahoo, S., Mukane, P., Maiti, J., & Tewari, V. K. (2024). A framework for process risk assessment incorporating prior hazard information in text mining models using chunking. Process Safety and Environmental Protection.
32. Sahoo, S., Maiti, J., & Tewari, V. K. (2024). A framework to model contractors' hazard and risk exposure at process plants using unsupervised text mining. Process Safety and Environmental Protection, 183, 24-45.
33. Sarkar P.; Khanapuri V.B.; Tiwari M.K. (2025). Integrating machine learning with dynamic multi-objective optimization for real-time decision-making: Information Sciences,690, 121524.

Publication Watch

34. Sarkar P.; Khanapuri V.B.; Tiwari M.K. .(2025). Integrating machine learning with dynamic multi-objective optimization for real-time decision-making: Information Sciences,690, 121524.
35. Kakde, S. T., Roychowdhury, S., Bhosale, A. T., & Maiti, J. (2024). CPAN chart: A Novel Customer Perception Analysis System Using Natural Language Processing and Attribute Control Charting. IEEE Transactions on Engineering Management.Sarkar, S., Paramanik, A. R., & Mahanty, B. (2024). A Z-Number Slacks-Based Measure DEA model-based framework for sustainable supplier selection with imprecise information. Journal of Cleaner Production, 140563.
36. Ranjan A.; Ranjan A.; Jha J.K. .(2025). Pricing and greening strategies in a dual-channel supply chain with government tariffs and cannibalisation under demand uncertainty: European Journal of Industrial Engineering.
37. Mishra S.; Tiwari M.K.(2025). Enhanced adsorbent selection for water treatment applying a composite index method: Illustration using diclofenac as a model contaminant. International Journal of Production Research,63,7

Contact IISE Student Chapter, IIT Kgp

Facebook: <https://www.facebook.com/IISEKGP>

Linkedin: <https://www.linkedin.com/iise-university-chapter-iit-kharagpur-660/>

Twitter: <https://twitter.com/DeptISEIITKGP>

Instagram: @iise_iitkgp_660

YouTube: Subscribe- Industrial and Systems Engineering IIT Kharagpur



***Please send us your stories for future issues of our newsletter at
"iseiitkgp.newsletter@gmail.com"***