IIT Kharagpur

SHADG 2024

HYBRID MODE
International Conference
January 29 & 30, 2024

International Conference on Safety, Health and Analytics-Driven Governance for Sustainable Development (SHADG 2024)

The Centre of Excellence in Safety Engineering and Analytics (CoE-SEA), IIT Kharagpur is organizing SHADG 2024 in collaboration with academic and industry partners. SHADG 2024 aims to provide an inter and multi-disciplinary forum for knowledge sharing, dissemination, networking and international collaboration in fields of safety, health, sustainability, human factors and analytics-driven governance.

About CoE-SEA

The CoE-SEA has been established in July 16, 2020 in IIT Kharagpur under the Institute of Eminence (IoE) scheme of Govt. of India. The CoE-SEA embodies to act as the hub for learning and practice, knowledge creation, standardization, repository, and dissemination of knowledge and information covering the broad domain of safety engineering and management, occupational and environmental health, human factors and industrial ergonomics, disaster management, and allied disciplines. It is a first of its kind focusing in safety analytics and analytics driven governance to protect people and property and promote sustainable development.

Opportunities and Benefits

Inspirational Keynotes: Renowned experts and thought leaders will deliver inspiring keynotes, offering insights into the latest trends, challenges, and innovations.

Thought-Provoking Sessions: Engage in in-depth discussions through a range of interactive sessions, workshops, and panel discussions led by industry experts.

Cutting-Edge Research: Explore the latest research findings and case studies that showcase real-world applications.

World - Best Practices: Witness the world - known best practices from renowned industry professionals.

Networking Opportunities: Connect with like-minded professionals, researchers, and practitioners from various fields to foster collaborations and exchange ideas.

Important Dates

Extended Abstract or Full Paper Submission	~~25-Nov-2023~~ 15-Dec-2023
Paper Acceptance Notification:	29-Dec-2023
Final Submission:	05-Jan-2023

Themes	
Track – I	Safety, Security and Analytics (SSA)
Track – II	Reliability, Maintenance and Analytics (RMA)
Track – III	Health, Epidemiology and Analytics (HEA)
Track – IV	Risk, Resilience, Sustainability and Analytics (RRSA)
Track – V	Human Factors / Ergonomics and Analytics (HFEA)
Track - VI	Analytics-Driven Governance (ADG)

Registration Fee	
Registration Type	**Amount**
Academic(Faculty)	6000 INR
Academic(Student)	3000 INR
Industry/ Govt. Officials	10000 INR
International Participants	300 USD
* Additional 18% GST will be chargeable	
* Accommodation will be provided on payment basis	
*No Registration Fee for currently enrolled students of IIT Kharagpur.	

Mode of payment:
The payment may be made online following the instructions provided in the CEP (IIT Kharagpur) website.

Link to register:
www.coesea.iitkgp.ac.in/shadg24

Tracks

Track I **Safety, Security and Analytics (SSA)**

Safety Engineering, Safety Management, Safety Analytics; Prevention Through Design (PtD); Hazard identification, Probabilistic Risk Assessment, Uncertainty Analysis; Safety Economics; Personal Protective Equipment (PPE); Transportation and Logistics Safety, Fire Safety, Construction Safety, Electrical Safety, Process Safety, Mine Safety, Manufacturing Safety; Nuclear Fuel Cycle Facility Safety; Chemical, Oil and Natural Gas Safety, Structural Safety; Cyber-security, Cyber-risk Management; Industry 4.0/5.0 Technologies, Data, Tools and Techniques for Safety and Security Analysis and Management.

Track II **Reliability, Maintenance and Analytics (RMA)**

Reliability Engineering, Reliability Assessment and Management, Reliability Design, Reliability prediction; Maintenance Engineering, Preventive and Predictive Maintenance, Remaining Useful Life (RUL), Condition Monitoring, Condition based Maintenance, Fault Diagnosis & Prognosis, Intelligent Asset Maintenance; Life Cycle Cost, Facility Integrity, Asset Management; Reliability and Maintenance Optimization; Industry 4.0/5.0 Technologies, Data, Tools and Techniques for Reliability and Maintenance Analysis and Management.

Track III **Health, Epidemiology and Analytics (HEA)**

Occupational Health, Industrial Hygiene, Health Analytics; Global Health Challenges; Environmental Health Risks, Climate Change and Health; Epidemiology, Injury Prevention, Accidental Injury and Damage, Sustainable Healthcare Systems, Affordable Healthcare, Musculoskeletal Disorders, Occupational Diseases, Job Stress, Noise and Hearing Loss; Tools and Techniques for Safety and Security Management; Industry 4.0/5.0 Technologies, Data, Tools and Techniques for Health Engineering and Management.

Track IV **Risk, Resilience, Sustainability and Analytics (RRSA)**

Business and Industrial Risk, Risk Perception, Risk-based Decisions; Resilience Engineering, Complexity and Emergence, Organizational Resilience and Risk Management; Economic, Social and Environmental Sustainability; Impact of Safety, Security and Disaster Management; Agile system, Sustainable Supply Chain; System Analysis Methods, Life Cycle Assessment and Management; Environmental, Social and Governance (ESG) and Sustainable Development; Industry 4.0/5.0 Technologies, Data, Tools and Techniques for Resilience and Sustainability Engineering and Management.

Track V **Human Factors / Ergonomics and Analytics (HFEA)**

Human Factors Engineering, Human Competency and Capability, Human Error and Behaviour, Cognitive Ergonomics; Digital Human Modelling, Human-Centric Design and User Experience (UX); Human Factors in Technology and Digital Interfaces; Workplace Ergonomics and Productivity; Public Policy and Health Economics; Disability Risk Prediction and Explanatory Models, Work Disability Prevention; Situational Awareness, Human sensing Technology, Cognitive information Processing; Industry 4.0/5.0 Technologies, Data, Tools and Techniques for Human Factors Engineering and Management.

Track VI **Analytics-Driven Governance (ADG)**

Leadership, Policy, Planning and Shared Decision-making; Monitoring, Evaluation and Learning (MEL); Standards, Acts, Audit, Management Information System (MIS); Resource Optimization; Real-time Monitoring, Decision Support System; Cyber Physical System Support, Artificial Intelligence and Intelligent System, Safety Technology, Smart Safety and Health; Smart Transport and Logistics, Intelligent Asset Management; Industry 4.0/5.0 Technologies, Data, Tools and Techniques for Governance.

Venue

Vikramshila Building, IIT Kharagpur, Kharagpur, West Bengal 721302
January 29 – 30, 2024

Centre of Excellence in Safety Engineering and Analytics
2nd floor, J C Bose Annex Building, Ramanujan Complex
Indian Institute of Technology Kharagpur, Kharagpur 721302, West Bengal, India

Sponsorship Packages

Platinum (Exclusive) Sponsorship: INR 600,000/ USD 7250 (plus 18% GST)

- Company name on all literature pre and post event and in conference website
- One exhibition stand in coffee/lunch area at event (3m x 4m floor space, table, chairs, power points)
- Four free delegates for the event
- 10 minutes presentation about the sponsor company at the event
- Display of 3ft x 5ft poster of the company near the conference venue

Diamond Sponsorship: INR 300,000 / USD 3600 (plus 18% GST)

- Company name on all literature pre and post event and in conference website
- Two free delegates for the event
- 5 minutes presentation about the sponsor company at the event
- Display of 3ft x 5ft poster of the company near the conference venue

Gold Sponsorship: INR 200,000 / USD 2400 (plus 18% GST)

- Company name on all literature pre and post event and in conference website
- Two free delegates for the event
- Display of 3ft x 5ft poster of the company near the conference venue

Silver Sponsorship: INR 100,000 / USD 1200 (plus 18% GST)

- Company name on all literature pre and post event and in conference website
- One free delegate for the event
- Display of 3ft x 5ft poster of the company near the conference venue

Track Sponsorship: INR 75,000 / USD 900 (plus 18% GST)

- Company name on all literature pre and post event and in conference website

Eminent Speakers:

Please visit conference website for details.

Submission Guidelines:

- Paper should be up to 6 pages length, including references and appendices with a clear abstract (150-250 words) outlining the objectives, methodology, key findings, and contributions of the paper.
- If interested only in submitting the extended abstract, it should not exceed one A4 size page (printable area) with Times New Roman style with font size of 12 and 1.5 spacing.
- Prepare your paper in .pdf format for submission.
- Electronic paper to be submitted at the following URL: www.coesea.iitkgp.ac.in/shadg24/

Publication:

Accepted full papers will be published in the conference proceedings or as a book chapter in edited books (based on further peer reviews and acceptance). Some selected papers may be published in the international journal of repute, subjected to further blind review and acceptance.

In Collaboration With

(to be updated)

TATA STEEL WeAlsoMakeTomorrow | adani

TRIP CENTRE — TRANSPORTATION RESEARCH & INJURY PREVENTION CENTRE

DART — AMERICAN EXPRESS LAB FOR DATA ANALYTICS, RISK & TECHNOLOGY | nidm silent India · Disaster Free In

TEES — Texas A&M Engineering Experiment Station — Mary Kay O'Connor Process Safety Center | LULEÅ UNIVERSITY OF TECHNOLOGY

European University Cyprus | CERIDES Excellence in Innovation and Technology

and the following departments and schools of IIT Kharagpur:

- **Subir Chowdhury School of Quality and Reliability**
- **Department of Mining Engineering**
- **Department of Chemical Engineering**
- **Department of Industrial and Systems Engineering**
- **Department of Humanities and Social Sciences**

Follow us on

Contact Us:

Ms. Sween Josco, Event Manager,
mailtosween@gmail.com

Mr. Pritam Ash, JA,
ashpritam@adm.iitkgp.ac.in

For more information and updates please visit SHADG2024 website:
www.coesea.iitkgp.ac.in/shadg24

Mail Us at: coesea@iitkgp.ac.in
Copy To: shadg2024@gmail.com
Call Us at: +91-3222-288040 (O)

To Know More Scan the QR Code

Organizing Committee

Patron
Prof. V K Tewari, Director, IIT Kharagpur

Organizing Chairman & Convener
Prof. J Maiti, Chairman, CoE-SEA

Convener
Prof. O B Krishna, Advisor, CoE-SEA

Co-Convener
Prof. Sanjay Kumar Chaturvedi, Prof., SCSQR
Prof. Bibhuti Bhusan Mandal, Assoc. Prof., ME
Prof. Bhim Charan Meikap, Prof., CE
Prof. Kishor Goswami, Prof., HSS

Members
Prof. Bhargab Maitra, Prof., CE, IIT KGP
Prof. Debashish Chakravarty.,MI, IIT KGP
Prof. Biswajit Samanta, Prof., MI, IIT KGP
Prof. Pulak Mishra, Prof., HSS, IIT KGP
Prof. Mamata Jenamani, Prof., ISE, IIT KGP
Prof. Jitendra Kumar Jha, Prof., ISE, IIT KGP
Prof. Sayak Roychowdhury, Asst Prof., ISE, IIT KGP
Prof. Goutam Sen, Asst Prof., ISE, IIT KGP
Prof. Anand Jacob Abraham, Asst Prof., ISE, IIT KGP

Organizing Secretaries
Prof. H Shrigondekar, Asst. Prof., CoE-SEA
Prof. R Ahuja, Asst. Prof., CoE-SEA
Prof. Rajiv Nandan Rai, Asst. Prof., SCSQR
Prof. Balagopal G Menon, Asst. Prof., ISE
Prof. Heeralal Gargama, Asst. Prof., SCSQR
Prof. Abhishek Sharma, Asst. Prof., ISE
Prof. Prantik Bagchi, Asst. Prof., HSS
Prof. Krittika Banerjee, Asst. Prof., HSS

Student Secretaries
Swarna Kamal Pradhan, Ph.D Student, CoE-SEA
Gourab Kumar Bagchi, MS, CoE-SEA
Madhwika, Ph. D Student, ISE
Satyajit Sahoo, Ph.D Student, ISE
Suraj Gupta, Ph. D Student, ISE
Yogesh Kumar Singh, RCESH
Amit Sharma, Ph. D Student, MI
Lalawmpui, Ph.D Student, MI
Sankhadeep Pramanik, Ph.D Student, CE
Deepak K Kushwaha, Ph. D Student, ISE
Sourav Bagchi, Ph. D Student, ISE
Koushik Mondal, Ph. D Student, ISE
Anandita Das, Ph. D Student, HSS
Palak Jain, Ph. D Student, HSS
Neha Rai, Ph. D Student, HSS
Shubham Raj, Ph. D Student, HSS
Sekhar Pal, Ph. D Student, HSS

Event Management
Sween Josco, PM, CoE-SEA
Pritam Ash, JA, CoE-SEA

Technical Support
Ashish Ranjan, ISE

International Committee

Prof. George Boustras
Editor in Chief - Safety Science; Director of CERIDES, European University of Cyprus

Prof. Faisal Khan
Director, Mary Kay O'Conner Process Safety Centre, Texas A&M University, USA

Mr. Andrew Page
Past Chairman of World Steel Association Health & Safety Committee, Ex MD of Coated Products/Long Products, Corus, Ex VP OF Corporate SHE, Tata Steel

Mr. Birendra Kumar Verma
Joint President and group head safety, Adani Enterprises Limited

Prof. Rajagopalan Srinivasan
Visiting Professor at U of Alberta | Head of DART Lab | Professor, Dept. of Chemical Engg., IIT Madras

Prof. Geetam Tiwari
Professor, Dept. of Civil Engg., IIT Delhi

Prof. Kalaga Ramachandra Rao
Professor, Dept. of Civil Engg.., IIT Delhi

Dr. Srinivas Pulugurtha
Director of IDEAS Center & Professor of Civil & Environmental Engineering, UNC Charlotte

Dr. Diptendu Das
Head , IGCAR, IFS, OPSD,AERB

Prof. G. Madhu
Professor, Division of Safety and Fire Engg..; Head of Division of Chemical Engg., School of Engg., Cochin University of Science and Technology (CUSAT)

Dr. Jayachandran K
Director(Technical), FACT Limited

Prof. M Bhasi
Senior Professor, School of Management Studies, Cochin University of Science and Technology

Prof. Pradip Kumar Ray
Emeritus Professor, Department of Industrial and Systems Engg., IIT Kharagpur

Prof. Siddhartha Mukhopadhyay
Professor, Department of Electrical Engg., IIT Kharagpur

Prof. Biswajit Mahanty
Professor, Department of Industrial and Systems Engg., IIT Kharagpur

Prof. Rahul Roy
Professor, IIM Kolkata

Prof. Seema Unnikrishnan
Professor, Sustainability Management, IIM Mumbai

Prof. Somnath Gangopadhyay
Professor, Department of Physiology, University of Calcutta

Mr. S Gopa Kumar
Managing Director, CAPE electric pvt ltd

Mr. Neeraj Kumar Sinha
Chief Safety, Tata Steel

Prof. Vivek Khanzode
Professor, IIM Mumbai

Prof. Khanindra Pathak
Professor, Department of Mining Engg., IIT Kharagpur

Prof. Jyoti Mukherjee
Adjunct Professor, University of Arizona

Mr. Ganesh E Patil
Additional Vice President & Head, Maintenance, Adani Electricity Limited

Dr. Ashish Trivedi
MBBS, DIH, MD, CCWS, MHFEM

Dr. Babu Jose
General Manager (Operations), ES-KO Internation Inc

Dr. Chitta Ranjan
Manager Applied Science, Amazon US

Dr. Cleo Varianou Mikellidou
Lecturer in Occupational Safety & Health - CERIDES Operations Manager at European University Cyprus

Prof. Deepty Jain
Assistant Professor, Transportation Research and Injury Prevention Centre, IIT Delhi

Prof. Lokesh Kalahasthi
Assistant Professor, Transportation Research and Injury Prevention Centre, IIT Delhi

Prof. Nikhil Bugalia
Assistant Professor, Department of Civil Engg., IIT Madras

Dr. Saptarshi Mandal
Machine Learning Subject Matter Expert, Microsoft US

Dr. Shaik Ahammad Basha
Assistant Professor, Rajiv Gandhi University of Knowledge Technologies

Prof. Siddharth
Assistant Professor, Plaksha University

Dr. Raghunathan Rajesh
Professor, Rajiv Gandhi Institute of Technology, Kottayam

Dr. Sobhan Sarkar
Assistant Professor, IIM Ranchi

Dr. Souvik Das
Visiting Scholar, Purdue University, USA

Dr. Ashish Garg
Lead Engineer, R&D, HCL Technologies

Ms. Kritika Singh
Business Analyst, Swiggy, India