



शिक्षा मंत्रालय
MINISTRY OF
EDUCATION



RMIT
UNIVERSITY



2nd SPARC India-Australia Workshop & Seminar on 'Vehicle Aerodynamics'

(Hybrid mode)

10th – 15th February, 2025

Overview

Scheme for Promotion of Academic and Research Collaboration (SPARC) aims at improving the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian institutions and the best institutions in the world from 28 selected nations as to jointly solve problems of national and/or international relevance. The SPARC scheme promotes bilateral cooperation through academic and research partnerships through India-Australia Workshop on 'Vehicle Aerodynamics' at IIT (ISM) Dhanbad during 10-15 February 2025. The first of such workshop was held at MNNIT Allahabad in January 2024.

The workshop is intended for senior undergraduate and postgraduate students and will impart a comprehensive knowledge in designing commercial vehicle from aerodynamics point of view leading to make it fuel efficient and environment friendly. The workshop will also focus on various aspects of aero-acoustics as vehicle aero-acoustic performance is directly related to safety and comfort of the driver and passengers. The workshop contents will also highlight the evaluation of commercial vehicles in India and its impact on global vehicle market. The workshop content will also include retrofitting of heavy vehicles, vehicle recycling and environmental impact of design and intelligent vehicle design and road safety.

The workshop will be conducted in hybrid mode for 2.5 hours a day. A seminar on the same topic will be organized on the last day of the event. The timing of the workshop is conveniently scheduled (from 6.30 PM to 9 PM) that even the students can attend the workshop after their regular classes. Interested participants (from undergraduate and post-graduate levels) can join the workshop at IIT (ISM) Dhanbad in offline mode, whereas the outstation participants can also join this workshop online. There is no registration fee to attend the workshop. However, all the participants need to fill-up a Google form showing their interests to attend the workshop. The workshop completion certificate will be given to the participants on the last day of the workshop in PDF format.

The workshop will be delivered by Prof. Firoz Alam, a Professor in the School of Aerospace, Mechanical and Manufacturing Engineering at RMIT University, Melbourne (Australia), who is an internationally acclaimed academic and researcher with proven knowledge, experience, and demonstrable ability in teaching, consultancy, research, and training in the field of vehicle aerodynamics. Indian experts and host faculty members will be associated with the foreign expert to ensure smooth delivery of the workshop.

Name	2 nd SPARC India-Australia Workshop & Seminar on 'Vehicle Aerodynamics'
Dates	10 February – 15 February, 2025 (6.30 PM to 9.00 PM)
Location	The workshop will be conducted in Hybrid mode at the Indian Institute of Technology (ISM) Dhanbad, Jharkhand, India
Faculty	Prof. Firoz Alam (RMIT University, Melbourne, Australia) Dr. Subhankar Sen (IIT-ISM Dhanbad) Dr. Akshoy Ranjan Paul (MNNIT Allahabad)
Course Schedule	Will be provided soon.

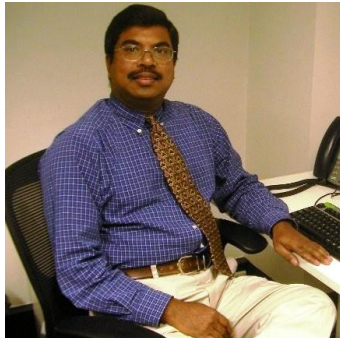
Registration:

There is no registration fee!

However, all the participants need to fill-up and submit a Google form given in the following link:

<https://forms.gle/CDO6P4RsuMkzmJAp6>

International Expert:



Professor Firoz Alam, RMIT University, Melbourne (Australia)

Professor Firoz Alam completed his Ph.D. in Road vehicle aerodynamics and Aero-acoustics from RMIT University, Melbourne, Australia in 2001. He completed M.Sc. (combined with Bachelor's degree) in Aeronautical Engineering with 1st class Honours (First Class First) from Riga Civil Aviation Engineers Institute, Latvia in 1991. Dr. Alam joined the School of Aerospace, Mechanical and Manufacturing Engineering at RMIT University as Lecturer in January 2002. He was promoted to Senior Lecturer in 2006, Associated Professor in 2011 and full Professor in 2015. In addition to teaching and research responsibilities, Prof. Alam has been serving as Program Director for Mechanical Engineering at RMIT University over 15 years. He has been heavily involved in teaching, research and administration. His research specialization includes thermal engineering, energy and energy policy, aerodynamics of aircraft, road vehicles, trains, buildings and wind turbines, sports aerodynamics and engineering education. His thermal engineering research includes building energy performance, heating, ventilation and air conditioning, renewable and conventional energy. Prof. Alam has supervised over 15 PhD students as principal supervisor. He has undertaken over 10 energy and aerodynamics related commercial projects with General Motors-Holden (GMH), Ford Motor Company, Queensland Rail, Breeze Air, Freight Link, Neopurple, SCT Logistics, National Pacific Rail, ACI logistics, Ministry of Power, Energy and Mineral Resources Bangladesh, Ministry of Mines and Petroleum Afghanistan, Department of Foreign Affairs and Trade (DFAT) Australia. Prof. Alam has successfully completed a large research project (over 1.2 million dollar) on energy conservation funded by the Australian Federal Government and Ministry of Power, Energy and Mineral Resources Bangladesh. Currently Prof. Alam is leading a skills enhancement project for Afghan Ministry of Mines and Petroleum funded by the Australian Federal Government with the support of Indian Central Government. Professor Alam has been awarded numerous awards including RMIT University Teaching Award, Emerging Researcher Award, Visiting Research Fellowship at Princeton University and NASA (USA). Currently he is serving as a member of the Editorial Board for Sports Engineering, published by Springer, assessor of Australian Research Council (ARC) and European Research Council (ERC). He is also serving as external invited referee for many reputed Journals such as Nature, National Geographic, Computers & Fluids, Energy and Buildings, Building and Environment, Applied Thermal Engineering, Wind Engineering and Industrial Aerodynamics, Sports Engineering, Sports Technology, Sports, Medicine and Science, Sports Science, Applied Biomechanics, Fuel, Powder Technology, European Journal of Engineering Education, Experimental Thermal Fluid Science, etc. Prof. Alam is a Fellow of Engineers Australia (IEAust) and Chartered Professional Engineer. He has delivered invited keynote papers at numerous international conferences and seminars on energy and power and allied areas. He has published over 200 scientific publications as book, book chapters, journal articles and conference papers. His research in applied aerodynamics and thermodynamics has notable impact and has been widely reported by the print and electronic media worldwide. Prof. Alam has chaired and organized major international conferences and Scientific Committees. He was the organizing Chair of 19th Australasian Fluid Mechanics Conference (AFMC2014) and founding chair of International Conferences on Energy and Power (ICEP2016, ICEP2018)- a popular conference series. He was also Co-Chair of the 4th APCST2009, held in Honolulu, USA in 2009 and 5th APCST2011 held in Melbourne in 2011. He has chaired aerodynamics, thermodynamics, and heat transfer sessions of a range of international conferences. He is also an active member of the International Advisory Committee for ICME, ICMIEE, ICTE, ICMERE, ICESD2020 and WEES2020.

About IIT(ISM) Dhanbad:

The Indian Institute of Technology (Indian School of Mines) is a fully residential and co-educational premier institute located in the mineral-rich belt of India in the city of Dhanbad, Jharkhand. It is one of the oldest technical institute of the country, serving the nation since 1926. What started as an institution to impart mining education, has graduated into a full-fledged technical institution of international acclaim offering a host of programmes, such as, B. Tech., M. Tech., M. Sc. Tech., integrated M.Sc., integrated M.Sc. Tech. and MBA. In addition, the Institute offers M. Phil. and full as well as part time Ph.D. programmes, while also awarding D.Sc. as the highest degree of academic achievement. The Institute has eighteen departments and six centers. Formerly known as Indian School of Mines Dhanbad, the Institute was upgraded to a full-fledged IIT on 6th September, 2016.



शिक्षा मंत्रालय
MINISTRY OF
EDUCATION



Contact Details for Registration/Further Query:

Dr. Akshoy Ranjan Paul

[Indian PI, SPARC Research Project]
Professor
Department of Applied Mechanics.
MNNIT Allahabad
Prayagraj- 211004, Uttar Pradesh. India.
Email: arpaul@mnnit.ac.in
Mobile: +91-9336060762

Dr. Subhankar Sen

[Indian Co-PI, SPARC Research Project &
Local Workshop Coordinator]
Associate Professor
Department of Mechanical Engineering
IIT (ISM) Dhanbad
Dhanbad- 826004, Jharkhand. India.
Email: ssen@iitism.ac.in
Mobile: +91-9471192536

How to reach IIT(ISM) Dhanbad:

Dhanbad city is well connected via railway and roadway to all the major cities of the country. IIT(ISM) Dhanbad is located about three kilometers away from Dhanbad railway station.