# Plenary and Keynote Speakers

#### **Profile** Speaker Prof. Dr.-Ing Tobias Plessing is Professor and Dean of the Engineering Department at Hof University. He has graduated in Mechanical Engineering from RWTH-Aachen, Germany. He has completed also his Diploma degree (Dipl.-Ing.) and Dr.-Ing. (PhD) in Mechanical Engineering from RWTH-Aachen. He has worked at Philips as a project engineer and at Saint-Gobain S.A. and later Interpane AG in the glass industry in different management positions before he became a Professor in 2013. He has more than 7 years of teaching experience in the field of Energy Technology. Renewable Energy (esp. biomass gasification and biogas technology), Energy Conservation, Combustion and gasification and Energy Efficiency. He has published more than 20 research papers in various reputed journals and conferences. He has a research group at the Institute of Water- and Energy-Management (iwe) at Hof University with currently 7 fellows, which are concentrating on heat pumps and refrigeration combined with solar ice storage systems, solar hybrid systems and esp. biomass gasification as well as combustion used in decentral energy systems. A particular field of his applied research is the improvement of Energy Efficiency in the industrial environment. Prof Josua Meyer, was in 2002, appointed at the University of Pretoria as professor, and Head of Mechanical and Aeronautical Engineering, and in 2004. He is a member or fellow of various professional institutes and societies such as ASME, ASHRAE, AIAA, and the Royal Aeronautical Society. He is registered as a professional engineer by the Engineering Council of South Africa. He is leading the Clean Energy Research unit that he established with a broad focus on thermal sciences and fluid flow, but with a narrower focus on heat exchangers. His heat exchanger work focused on fundamental work of flow in the transitional flow regime, mixed convection, nanofluids, boiling, and condensation. On an applications level his work focus on thermal-solar-, wind- and nuclear energy. He has grown this research group to approximately 30 full-time graduate students and 10 staff members. During this time he also established various labs with state-of-the-art instrumentation and designed and constructed (with his group members) more than 12 unique experimental set-ups. He has received 11 different national teaching awards from three different universities, as well as an international award, in 2013, for "Best professor in mechanical and aeronautical engineering". He has won more than 45 research awards including 25 awards for best article of the year or best conference paper. For his research he has won the following national and international awards: Thomas Price Award, Rand Coal Award, South African Institute of Mechanical Engineers Medal, LT Campbell-Pitt Award, Literati Award, Chairman's Award of the South African Institute of Air-conditioning and Refrigeration, and Will Stoecker award. He recently won the NSTF Award for developing large numbers of engineering research graduates of the highest quality over the last 5 – 10 years. His is a "highly cited researcher" according to the ISI, and ranked among the top 0.1% in engineering. He is on the editorial board of 13 journals and is editor of 7 journals in his field of research. He has also chaired 15 international conferences. Recently, he was on the selection committee of the Franklin Institute Awards Programme (one of the world's oldest (since 1824)) for the Benjamin Franklin Medal. To date, 117 awards of this institute have been honoured with Nobel prizes. He has evaluated in 2017 by the Foundation of Research Development as an A2 researcher who is unequivocally recognized by their peers as leading international scholars in their field for the high quality and impact of their recent research outputs. He has (co)authored more than 800 articles, conference papers, book chapters, patents, etc. and has (co)supervised more than 100 research masters and PhD students. In 2016, he won the University of Pretoria "Exceptional Achiever Award" for the fifth time. He received the University of Pretoria Chancellor's award for exceptional achievement in supervision (2016) of postgraduate students and for research (2019) for sustained excellent performance, in recognition of exceptional achievement in research and the associated promotion of the University of Pretoria.



Prof. Pinakeswar Mahanta is Professor in the Mechanical Engineering Department. Indian Institute of Technology Guwahati. He has graduated in Mechanical Engineering from Regional Engineering College Rourkela. He has completed his master degree (M.Tech) in Mechanical Engineering from Indian Institute of Technology Kharagpur and PhD in Mechanical Engineering from Indian Institute of Technology Guwahati. He has more than 18 years of teaching experience in the field of Conjugate radiation, Renewable Energy (Biodiesel, biomass gasification and biogas technology), Circulating Fluidized Bed Technology, Energy Conservation, Combustion and gasification of solid fuel, Refrigeration and Air conditioning besides and 14 years of industry experience. He has published more than 140 research papers in various reputed journals and conferences, and 6 book chapters. He is a recipient of India Distinguished Visiting Fellow awarded by the University of Nottingham, United Kingdom in the year 2010. He is also JSPS Fellow awarded by Gifu University, Japan in December 2016. He has received Honorary Research Professor by South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERs), Secundrabad, India. He has also visited Hof University of Applied Sciences, Germany as resource person. He has guided twenty PhD students and number of master's students. Currently, he is a Director of National Institute of Technology Arunachal Pradesh.



**Prof. Sarit Kumar Das**, Director and Professor, Indian Institute of Technology Ropar, Punjab is currently on leave from Indian Institute of Technology Madras where he is a Professor with the Mechanical Engineering Department and served as Dean (Academic Research) in the past. After obtaining B.E (Mechanical) in 1984 and M.E (Heat Power) in 1987 from Jadavpur University, he completed his Ph.D degree in the area of Heat Transfer from Sambalpur University in 1994 and joined University of BW Hamburg, Germany where he did his Post-Doctoral Research in the area of Plate and Liquid Metal Heat Exchangers.

He has published four books and more than 300 research papers. He is a recipient of the DAAD and Alexander von Humboldt Fellowship of Germany. He is a fellow of the Indian National Academy of Engineering and the National Academy of Sciences, India. He has been bestowed with several Awards such as "India Citation Award 2012" by Thomson Reuters and "Prof. K. N. Seetharamu Award & Medal for Excellence in Research" by Indian Society for Heat and Mass Transfer in the year 2006. He has also been awarded the Peabody Visiting Professorship at the Mechanical Engineering Department, Massachusetts Institute of Technology, Cambridge, USA, in 2011. He is the Editor-in-Chief of the International Journal of Micro/Nanoscale Transport and an Associate Editor of the journal Heat Transfer Engineering. His current research interests include heat transfer in nanofluids, microfluidics, biological heat transfer, nanoparticle mediated drug delivery in cancer cells, heat exchangers, boiling in mini/microchannels, fuel cells, jet instabilities, heat transfer in porous media, and computational fluid dynamics.



Suman Chakraborty is a Professor in the Mechanical Engineering Department of the Indian Institute of Technology Kharagpur, India and Sir J. C. Bose National Fellow as bestowed by the Department of Science and Technology, Government of India. He has been Institute Chair Professor. He is currently the Dean of Sponsored Research and Industrial Consultancy. Formerly, he was the Head of the School of Medical Science and Technology. His current areas of research include microfluidics, nanofluidics, micro-nano scale transport, with particular focus on biomedical applications including diagnostic technology. He has been awarded the Santi Swaroop Bhatnagar Prize in the year 2013, which is the highest Scientific Award from the Government of India. He has been elected as a Fellow of the American Physical Society, Fellow of the Royal Society of Chemistry, Fellow of ASME, Fellow of all the Indian National Academies of Science and Engineering, recipient of the Indo-US Research Fellowship, Scopus Young Scientist Award for high citation of his research in scientific/technical Journals, and Young Scientist/ Young Engineer Awards from various National Academies of Science and Engineering. He has also been an Alexander von Humboldt Fellow, and a visiting Professor at various leading Universities abroad. He has a large volume of impactful publications in top International Journals with high citations and a unique expertise in technology development for the under-served population and community health-care



Dr. Kunal Mitra is currently a Tenured Professor of Biomedical Engineering with joint appointment in Mechanical Engineering at Florida Institute of Technology, Melbourne, Florida. He is also the Director of Laser, Optics, and Instrumentation laboratory which he established at Florida Tech in 2000. He earned his BSME degree from Jadavpur University, Calcutta, India in 1991. He then earned his M.S. and Ph.D. degree in Mechanical Engineering from NYU School of Engineering in 1993 and 1996 respectively. Prior to joining Florida Institute of Technology in August 1997, he was working as a Postdoctoral Fellow for a year at National Oceanic and Atmospheric Administration, Boulder under the prestigious National Research Council Research Associate Fellowship Program. Since joining Florida Tech, Dr. Mitra initiated various research projects in the area of biomedical engineering, thermal sciences, and energy systems. He has published more than 160 papers in journals and conference proceedings. He also has secured 2 patents in biomedical imaging area. He has received significant funding from federal, state and private funding agencies in support of his research projects. He is a Fellow of American Society of Mechanical Engineers (ASME). American Society for Laser Medicine and Surgery (ASLMS), and Senior Member of Society of Photo-Optical Instrumentation Engineers (SPIE). He serves on the Board of Florida Photonics Cluster. He also serves on Research Strategy Committee of NASA-New Organ Alliance and Steering Committee of Regenerative Medicine Engineering Society. He is also Associate Editor of four journal in the areas of heat transfer, medical device, and tissue engineering. He has received university Faculty Excellence in Research in 2015 and Faculty Excellence in Service in 2013.



**Dr Richard Blanchard** holds the personal title of Reader in Renewable Energy at Loughborough University. Richard is head of the Renewable Energy for Development Research Group within the Centre for Renewable Energy Systems Technology (CREST), part of the Wolfson School for Mechanical, Electrical and Manufacturing Engineering. The research Richard leads investigates solutions to improve the livelihoods and wellbeing of people as well as reducing the environmental impacts of energy consumption. He is the technical lead for the £40 million UK Foreign, Commonwealth and Development Office Modernising Energy Cooking Services project. In addition, he is part of the UK-India Joint Virtual Clean Energy Centre Programme (UKRI-DST) and working with industry on off-grid productive uses of energy in Sub-Saharan Africa. Richard is also currently the Director of the European Masters in Renewable Energy and has over 150 publications.



Sudipta De received his Ph.D. degree from Indian Institute of Technology (IIT), Kharagpur. He was a guest researcher at the Department of Energy Sciences, Lund University, Sweden for more than one year. Currently, he is Professor at the Mechanical Engineering Department, Jadavpur University, India. He was nominated senior scientist by Indian National Science Academy (INSA), New Delhi to Technical University of Munich, Germany in the field of sustainable energy under international bilateral exchange program of the Academy. He was the selected faculty under "India4EU" program with specialization in sustainable energy engineering and worked at the Royal Institute of Technology, Stockholm. He visited and delivered invited lectures in many programs/Institutes including American Society of Mechanical Engineers (ASME), Technical University of Berlin and Munich, Germany; Lund University, Royal Institute of Technology (KTH), Stockholm, Sweden; University of Bologna, Italy; University of Stavanger, Norway etc. He received his research funding from different institutes including UGC, DST, Government of India; EU, Swedish Research Council, DFG-Germany; SIU and DIKU-Norway etc. He was faculty member from Jadavpur University for EU funded multi-country 'Project E-QUAL' and developed online course modules on 'Sustainable Energy'. He is/was also member of several technical committees including that of Power and Energy Systems of The International Association of Science and Technology for Development (IASTED), Canada and international energy initiative "Explore Energy" by the Royal Institute of Technology, Sweden. He has published several international journal papers and twelve international books/invited chapters. He was an advisory editorial board member of book series by CRC press on Sustainable Energy Developments. He is/was the Coordinator of two Norwegian Collaborations; Co-PI of an EU funded Inno-Indigo project with Finland and Germany and another multi-country EU project on quality of higher education. He is also key resource person of Energy and Environment Committee and member of the Education Committee of the Bengal Chamber of Commerce and Industry, the oldest Chamber of India. He has been elected fellow of West Bengal Academy of Science and Technology from 2018. He is also awardee of Indian National Science Academy (INSA) Teacher Award in 2019.



**Dr. V. S. Moholkar** is a Professor of Chemical Engineering and Head of Center for Energy at Indian Institute of Technology (IIT) Guwahati. He holds Ph.D. from University of Twente in Netherlands. His main research interests are sonochemistry, cavitation assisted physical, chemical and biological processing, and thermo- and biochemical routes to biofuels. He has published more than 160 papers in renowned international journals with more than 7000 citations. He is also co-inventor of 2 US patents on application of hydrodynamic cavitation reactors for biofuels synthesis. He has graduated 17 Ph.D. and 32 M.Tech. students. He is a Fellow of Royal Society of Chemistry (FRSC) and Fellow of Institution of Chemical Engineers, UK.



A national scholarship holder and a Ph.d from Indian Institute of Technology, Delhi, Prof. Rajat Gupta, 1959 born, is a Professor in the Department of Mechanical Engineering of NIT Silchar since 1996. He was selected as a Director of NIT Srinagar, Jammu and Kashmir in 2011. He successfully completed his tenure of 5 years at NIT Srinagar in October 2016. Thereafter, he joined back at NIT Silchar in October, 2016 and he was appointed by the MHRD, Government of India as the officiating Director of NIT Silchar. In July, 2017, he joined as the Director of NIT Mizoram which is one of the 10 new NITs established in 2010. He has published more than 180 research papers in various National/International Journals/ Conferences and also written 06 Chapters in books. He has produced many Ph.D and M.Tech scholars. His research areas include among others, Fluid Mechanics, CFD, Non-Conventional Energy, Thermo-fluids, etc. He chaired various National/International Conferences and delivered keynote addresses too. He is associated with various committees of MHRD, Government of India, NBA, AICTE, NIF- Ahmadabad, IEI, ASME, etc. Presently, he is the Chairman of Mizoram State Centre- The Institution of Engineers India. He received many awards like Education Leadership Awards, Rajiv Gandhi Education Excellence Awards etc.