

# Tyre Technology Course

Sheraton Grand Bengaluru Whitefield Hotel & Convention Center,  
Karnataka, India. 22<sup>nd</sup> & 23<sup>rd</sup> Nov 2022.



Supported by Virginia Tech. University  
and Akron tyre research center, USA



Dear Sir / Madam,

We are pleased to inform you that International rubber conference organization (IRCO) and Indian Rubber Institute (IRI) are organizing IRC2022 during 24th to 26th November 2022 at Sheraton Grand Bengaluru Whitefield Hotel & Convention Center, Karnataka, India. The theme of the conference is “Sustainable technology, innovation and Mobility”

The present members of the IRCO are Australia, Brazil, China, Czech Republic, France, Germany, India, Japan, Korea, Malaysia, the Netherlands, NGTR, Russia, Slovak Republic, Thailand, Turkey, UK and USA. The conference will be held on rotation basis in all these countries. As a part of this mega event Indian Rubber Institute (IRI) is organizing a Tyre Technology Course with the support of Virginia Tech . University, and Akron tyre research center, USA . Prof.Dr.Saied Tahari from Virginia Tech USA, and Dr. Ronald Kennedy from Akron tyre research are taking classes for the participants. The programme will be held on 22<sup>nd</sup> and 23<sup>rd</sup> Nov. 2022, at Sheraton Grand Bengaluru Whitefield Hotel & Convention Center, Karnataka, India. The participation fee for two days programme is Rs.50,000/- for Indians and USD 900 for international participants. This will be a great opportunity for budding tyre technologists to enhance their knowledge to perform better in their career. Requesting your participation in this programme to make it a great success

Thanking you for your support.

P.K.Mohamed  
Chief Convener  
IRC2022,Bengaluru, India

## International Rubber Conference Organization (IRCO)

The International Rubber Conference Organization (IRCO) is an association of rubber societies around the world which plan the calendar for the main international rubber conferences. By careful selection of conference proposals and monitoring of events, the IRCO ensures that all conferences run by its member societies meet the very demanding requirements dictated by the IRCO and thus provide delegates with first-class conferences.

## Indian Rubber Institute (IRI)

Indian Rubber Institute (IRI) is a professional body of Technologists, Engineers, Scientists, Academicians and Professionals associated with Indian Rubber industry. It was registered on 25th May 1987 under West Bengal Societies Act XXVI of 1961, and is the successor in India of Plastics and Rubber Institute (PRI), London, U.K. IRI is a non-profit organization engaged in the development of diverse areas of technological education, training and skill development in Rubber sector. Affiliated with American Chemical Society (ACS), Rubber Division Member of International Rubber Conference Organization (IRCO), UK is Training Provider of Rubber Skill Development Council (RSDC).



**Dr. Ron Kennedy**

Dr. Ron Kennedy is currently the Managing Director of the Center for Tire Research (CenTiRe), an industry/university consortium involving Virginia Tech, the University of Akron, and tire and tire-related companies. Before joining CenTiRe, he worked for 37 years in the tire industry at Firestone, Bridgestone/Firestone, and Hankook Tire performing tire finite element methods development and software programming, simulation systems development, advanced tire design, and tire factory uniformity studies. His work has covered the range of tire performance areas, manufacturing, and design.

Dr. Kennedy is currently an Associate Editor of the Tire Science & Technology journal. He has numerous technical publications and presentations, and has been awarded the Arch T. Colwell Merit Award from SAE for work on 3D steady state rolling tire finite element development, the Tire Society Superior Paper Award and an Honorable Mention Award for his presentations on finite element modeling of the tire post-cure process, and the CEO Award and President's Award from Bridgestone/Firestone. Dr. Kennedy was the Plenary Speaker at the 2017 Tire Society Conference and gave the Keynote Address at the 2018 ACS Rubber Division Spring Technical Meeting.

Dr. Kennedy received his BS and MS degrees in Engineering Mechanics from the University of Wisconsin, and his PhD in Mechanical Engineering from the University of Akron.

**Dr. Saied Taheri**



Saied Taheri is a Professor of Mechanical Engineering at Virginia Polytechnic Institute and State University, known as Virginia Tech (VT). He has been the founding director of the NSF I/UCRC Center for Tire Research (CenTiRe) since 2012 and the director of the Intelligent Transportation Laboratory since 2008. He was also the co-founder of the National Tire Research Center in 2009. He has 29 years of academic and industrial experience in automotive engineering (tire and vehicle dynamic modeling and design), dynamics and control, and intelligent systems, with applications in intelligent tires and vehicles, vehicle dynamics and control, automotive and transportation safety, and railroads. Prior to joining VT in 2007, he worked at Goodyear Tire and Rubber Company and at the University of Akron (1998-2007) and earlier worked as an assistant professor at Tehran Polytechnic Institute (1991-1998).

Dr. Taheri has been instrumental in the establishment of a new and unique undergraduate major in Robotics and Mechatronics at VT-ME and is currently working on establishing an undergraduate major and a graduate program in Automotive Engineering. He has published 163 refereed (journal and conference) articles, delivered 76 abstracts in presentations, seminars, and invited talks, and is currently finishing a book in Vehicle Dynamics. At Virginia Tech, he has directed 8 post-docs/visiting scholars, 16 doctoral dissertations, 19 master theses, and 76 undergraduate student projects, and served as reader/examiner of 46 additional theses and dissertations. His sponsored research has reached \$15.2M. He is an associate editor of two journals, and was the President of the Tire Society (2014-2016). He received his B.S., M.S., and Ph.D. degrees in Mechanical Engineering from Clemson University in 1984, 1986, and 1990, respectively.

## TYRE MECHANICS COURSE SYLLABUS

1. Introduction to tyre technology
2. Tyre forces and moments generation mechanism and its effect on vehicles
3. Handling performance analysis
4. Ride dynamics
5. Tyre properties
  - a. Tyre Traction- Physics and chemistry behind the same
  - b. Tyre wear Mechanism- Types of wear pattern and its relation to tyre design, road surface and environmental condition.
  - c. Noise and vibration
  - d. Tyre stiffness and its impact on handling
  - e. Tyre friction
  - f. Finite element modeling of tyres
  - g. Advancement in tyre materials & sustainability
  - h. Rolling resistance

**Sheraton Grand Bengaluru Whitefield Hotel & Convention Center**  
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*For further details / registration, please contact IRC2022 Workshop Convener Mr. Jiby Isaac  
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### CONFERENCE & EXPO SECRETARIAT - IRC 2022

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