

Plenary Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Advanced Functional Fiber Materials: Research Progress and Future Development

Academician Professor Meifang Zhu

Dean of the College of Materials Science and Engineering,
Director of the State Key Laboratory for Modification of Chemical Fibers and
Polymer Materials
Donghua University
China



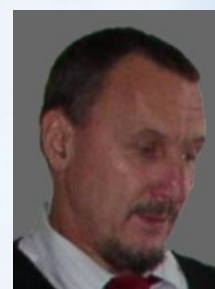
Academician Prof. Meifang Zhu, (Ph.D, 1999, Donghua University) member of the Chinese Academy of Sciences, TWAS Fellow. Currently, she is the dean for the College of Materials Science and Engineering in DHU, and the director of the State Key Laboratory for Modification of Chemical Fibers and Polymer Materials. Prof. Zhu has long been engaged in the research of functional fibers, nanofibers and intelligent fiber materials, organic /inorganic hybrid materials. She is renowned for both her fundamental and technological contributions to the design and development of polymer-based nanocomposites and their fiber processing. She published more than 500 papers in peer-review journals, 10 books (chapters), as well as authorized more than 300 National Invention Patents. She received many honors and awards, including Second Prize of National Award for Technological Inventions (2020), Second Prize of National Award for Progress in Science and Technology (2006), First Prize of Shanghai Natural Science Award (2018), etc.

Topic of the Speech:

Strategies for Flame Retardant Textiles

Professor Jiri Militky

Textile Faculty
Technical University of Liberec
Czech Republic



Prof. Jiri Militky, Prof. MSc. PhD., EURING, FEA. Born 16/06/1949, employment: Technical University of Liberec, Czech Republic. Work experience: 2019 – head of PhD studies board at Textile Faculty, 2012 head of Department of Material Engineering, 2009 - 2011 Vice dean for foreign affairs, 2003-2008 Dean of Textile Faculty, 2000 - 2002 Vice rector for science and foreign affairs at TU Liberec, 1994 - 1999 Dean of Textile Faculty, 1991- 1993 Vice rector for foreign affairs at TU Liberec, 1991 head of Department of textile materials, 1976 - 1989 Research Institute of Textile Finishing, head of scientific development dept., 1973- 1976 State Textile Research Institute Liberec – research worker. Scientific orientation: Modeling of fibrous structures, textile metrology, statistical data treatment, quality control, textile material engineering. Publication activities: 26 books, 481 articles, H index (SCOPUS) 31

Plenary Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Data-Driven Evolutionary Optimization

Academician Professor Yaochu Jin

Alexander von Humboldt Professor for AI
Bielefeld University
Germany



Academician Prof. Yaochu Jin is presently an Alexander von Humboldt Professor for Artificial Intelligence endowed by the German Federal Ministry of Education and Research, Chair of Nature Inspired Computing and Engineering, Faculty of Technology, Bielefeld University, Germany. He is also a Distinguished Chair, Professor in Computational Intelligence, Department of Computer Science, University of Surrey, Guildford, U.K. He was a “Finland Distinguished Professor” of University of Jyväskylä, Finland, “Changjiang Distinguished Visiting Professor”, Northeastern University, China, and “Distinguished Visiting Scholar”, University of Technology Sydney, Australia. His main research interests include evolutionary optimization, evolutionary learning, trustworthy machine learning, and evolutionary developmental systems. Prof Jin He was named by the Web of Science as “a Highly Cited Researcher” from 2019 to 2021 consecutively. He is a Member of Academia Europaea and Fellow of IEEE.

Topic of the Speech:

Clothing Pressure and Pressure Sensation While Wearing Pantyhose Muscle Activity Changes in the Legs

Professor Tamaki Mitsuno

Shinshu University
Japan



Prof. Tamaki Mitsuno received her Ph.D. degree in human life science, Specialist, at clothing physiology from Graduate school of Kyoritsu Women’s University, Tokyo, Japan in 1996. She is currently a professor, head of the Home Economics course in Faculty of Education and in Graduate School of Medicine, Science and Technology (Doctor’s Program). Her research interests include clothing wearing comfort, clothing pressure and its pressure sense, and supported wear for burning body fat and reducing swelling. So far, she has published over 70 peer reviewed journal articles. Currently, she is a Member of the Asian Regional Association for Home Economics, The Society of Fiber Science and Technology, Japan, The Japan Research Association for textile end-uses.

Plenary Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Flexible and Wearable Acoustofluidic Biosensing Platform Based on Thin Film Piezoelectrics with Human-Machine Interactions

Professor Yongqing Fu

Faculty of Engineering and Environment
University of Northumbria
UK



Prof. Yongqing Fu is a professor in the Faculty of Engineering and Environment, University of Northumbria at Newcastle, UK. He obtained his PhD degree from Nanyang Technological University, Singapore, and then worked as a Research Fellow in Singapore-Massachusetts Institute of Technology Alliance, and a Research Associate in University of Cambridge. He was a lecturer in Heriot-Watt University, Edinburgh, UK, and then a Reader in Thin Film Centre in University of West of Scotland, Glasgow, UK, before moving to Newcastle, UK in 2015. He has extensive experience in smart thin films/materials, biomedical microdevices, energy materials, lab-on-chip, micromechanics, MEMS, nanotechnology, sensors and microfluidics. He has established a worldwide reputation from his pioneer research work on shape memory films, piezoelectric thin films, nanostructured composite/films for MEMS, sensors/actuators, and renewable energy applications. He published over 450 science citation index (SCI) journal papers (including Nat. Comm., Prog. Mater Sci, Adv. Mater., ACS Nano, Adv. Sci., Nano Energy, Nano Lett., Mater Horizons, Small, Chem. Mater., J Mater Chem A, Advanced Drug Delivery Review, Renewable and Sustainable Energy Reviews), two books, 20 book chapters, and over 120 conference papers. His current SCI H-index is 58 with over 15 K citations, and his Google scholar H-index is 68 with over 20K citations (up to March 2022). He is associate editors/editorial board members for seven international journals including Scientific Report. He is regular journal paper reviewers for more than 40 journals, has co-organized 12 international conferences worldwide, and co-edited six special issues for different journals.

Topic of the Speech:

Embroidered Electronics for IOT and Wearable Sensors

Professor Terry Ye

Department of Electrical and Electronic Engineering
Southern University of Science and Technology (SUSTech)
China



Prof. Terry Ye is the Professor at the Department of Electrical and Electronics Engineering (EEE) at Southern University of Science and Technology (SUSTech), and by courtesy, an Adjunct Professor at the Department of Electrical and Computer Engineering (ECE) at Carnegie Mellon University. Dr. Ye is active in both academic research as well as industrial applications in many engineering areas that include IC Designs, Neuromorphic Computing ICs, Internet-of-Things (IOT) and Wireless Sensor Devices. Dr. Ye received his Ph.D. in Electrical Engineering from Stanford University and the Bachelor of Science in Electronic Engineering from Tsinghua University (Beijing). Prior to SUSTech, Dr. Ye had been the Professor of CMU-SYSU Joint Institute of Engineering since 2014, as well as the Director of Research and Technology Development of Hong Kong R&D Center for Logistics and Supply Chain Management (LSCM) since the center's inception in 2007. He also serves as the research fellow at the University of Hong Kong and the Chief Scientist of IOT Lab at Hong Kong University of Science and Technology. Beside his academic activities, Dr. Ye is keen on industry-academic collaborations. He had held various engineering and consulting roles in China Academy of Science, Impinj Inc, Synopsys Inc., Analog Device Inc., Magma Design Automation Inc., Silicon Architects Inc. and many other Silicon Valley companies.

Plenary Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Epidermal Systems for Physiological Information Monitoring

Professor Youfan Hu

Peking University

China



Prof. Youfan Hu received her Ph.D. degree in Physical Electronics from Peking University, Beijing, China in 2008. She is currently an Associate Professor in the Department of Electronics at Peking University. Her research interests include high performance nanosensors, flexible carbon nanotube based integrated circuits, energy harvesting technology, and integrated smart sensor system. So far, she has published over 70 peer reviewed journal articles with a citation exceed 9300. Currently, she serves as Associate Editor of IEEE Transactions on Nanotechnology, “Electronic Sensors” Section Editor-in-Chief of Sensors and Executive Board Member of Science Bulletin.

Topic of the Speech:

Wearable and Implantable Piezoelectric Materials for Biomechanical Energy Harvesting and Utilization

Professor Xudong Wang

Department of Materials Science and Engineering

University of Wisconsin-Madison

USA



Prof. Xudong Wang is the Grainger Institute for Engineering Professor in the department of Materials Science and Engineering at University of Wisconsin – Madison, and the Energy & Sustainability thrust Leader at the Grainger Institute for Engineering. Dr. Wang received his PhD degree in Materials Science and Engineering from Georgia Tech in 2005. His current research interests include developing advanced nanomaterials and nanodevices for mechanical energy harvesting from human activities for biomedical applications; and understanding the coupling effect between piezoelectric polarization and semiconductor functionalities. He has won number of prestigious national and international awards, including PECASE, NSF CAREER Award, DARPA Young Faculty Award, etc. He has published more than 170 papers on peer-reviewed journals, including Science, Nature, Nature Energy, etc. His current h-index is 75.

Plenary Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Improving the Maternal and Child Health Graphical for Low-And-Middle Income Countries Profiles

Professor A. Blanton Godfrey

Joseph D. Moore Distinguished University Professor & Former Dean
Wilson College of Textiles
North Carolina State University
Raleigh, North Carolina
USA



Prof. A. Blanton Godfrey is the Joseph D. Moore Distinguished University Professor of Textile and Apparel, Technology and Management in the Wilson College of Textiles. He is a Fellow of the American Statistical Association, the American Society of Quality, the World Academy of Productivity Sciences, the Royal Society of Arts, Manufactures and Commerce and an elected member of the New York Academy of Science. Professor Godfrey is the recipient of the C. Jackson Grayson Distinguished Quality Pioneer Medal, the Feigenbaum Lifetime Achievement Medal, and is an Honorary Member of the American Society for Quality. He has a B.S. in Physics from Virginia Tech and an M.S. and Ph.D. in Mathematical Statistics from Florida State University. He is the co-author of eight books and over 30 book chapters and has published over 200 papers. Prior to joining NC State University as Dean of the College of Textiles, Dr. Godfrey was Chairman and CEO of Juran Institute, a quality management consulting company working in over 60 countries. He joined Juran Institute after fourteen years at Bell Telephone Laboratories where he was Head of the Quality Theory and Technology Department. He taught graduate courses at Columbia University for nineteen years as an adjunct professor in Industrial Engineering and Operations Research and was a visiting lecturer in clinical quality at Harvard University for four summer courses. In 1987 he co-founded the National Demonstration Project for Quality Improvement in Healthcare that later became the Institute for Healthcare Improvement, an organization that he has been associated with for over 30 years serving as a member and as chair of the board.

Plenary Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Creation of a Metaverse Ecosystem for Supporting Textile/Fashion Design by Combining Digital Simulations and AI-Based Human-Product Interactions

Professor Xianyi Zeng

Director of the GEMTEX Laboratory
The ENSAIT Textile Engineer School, University of Lille
France



Prof. Xianyi Zeng is a full professor (exceptional class) in ENSAIT Textile Engineer School, France, Director of the GEMTEX National Laboratory, and also a guest professor of Donghua University, Soochow University, Nankai University and Wuhan Textile University. His main research interests include artificial intelligence, digital fashion, sensory analysis, intelligent wearable systems, computerized garment design and customized production management. He has published more than 150 papers in peer-reviewed international journals and presented more than 250 papers at international conferences, and supervised more than 35 PhD students. In addition, as project coordinator, he has conducted three European projects such as FBD_BModel (H2020 Program) and a number of national and regional research projects as well as industrial projects in cooperation with international groups in France and Europe.

Plenary Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Sustainable Fashion and Digitization

Dr. Yi Meng

Haier IoT Research Institute
China



Dr. Yi Meng is the Strategic Expert of Haier Group Science and Technology Committee, served as the director of the Haier IoT Research Institute in the past 4 years, he is responsible for the overall planning, advanced technology layout and standard patents of the committee. Yi Meng is the founding member of the Blockchain Committee of the Chinese Institute of Communications, the authorized representative of the first member of the National Information Standardization Committee Internet of Things Sub-Technical Committee, the standard review member of the IEEE Intelligent Manufacturing Committee, and serves as Chair of IEEE Standard Working Group on General requirements and interoperability of Internet of Clothing. At the same time, he also serves as the chair of the ISO/IEC JTC1 SC31 International Standards Ad Hoc Working Group on the Internet of Things, the GS1 Standard Intellectual Property Advisory Committee, and the standards liaison officer of the ISO/IEC JTC1 SC41 Internet of Things Subcommittee. Yi Meng is currently mainly responsible for the development of international standards and the layout of intellectual property rights, and the technology development of the home appliance industry. He has led and participated in more than 40 international and national standard work, and holds more than 80 international and domestic patents. Yi Meng received his Ph.D. degree from Illinois Institute of Technology in 2009, has been working in the manufacturing and IoT industries for over 20 years.

Topic of the Speech:

Strengthen of Linen/Hemp Clothing Bioactivity by Application of Medicinal Plants Extracts

Dr. Malgorzata Zimniewska

Institute of Natural Fibers and Medical Plants
Poland



Dr. Malgorzata Zimniewska is scientist at the Institute of Natural Fibres & Medicinal Plants. Her main area of interest is to develop of natural lignocellulosic fiber processing, technologies and evaluation, to meet the specific needs of different fiber applications including pro-healthy textiles and composites. She is a Member of the Scientific Committee of the Circular Bio-Based Europe Joint Undertaking (CBE JU), Member of the Textile Institute Council, Member of Advisory Council of BIOEAST Board - Central and Eastern European initiative for knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy, She serves as Vice Chair of Quality Control for Horizon Europe, European Innovation Council Pathfinder, 2021 and in H2020-Future and Emerging Technologies 2018 – 2020. Currently, she leads Polish tasks of the project H2020 INN-PRESSME, “Open INNnovation ecosystem for sustainable Plant-based nano-enabled biomaterials deployment for packaging, transport and consumer goods”, 2020-2025. She worked as an expert of BIOEAST Macro-Regional BIOECONOMY Foresight, Project of Visegrad Group Countries, 2020 – 2021 and is coauthor of Bioeast Foresight Exercise Report: Sustainable Bioeconomies towards 2050. She has led many international, European and national projects. She has authored and co-authored more than 160 scientific articles and 6 patents.

Plenary Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Research on WSR Collaboration Model of Distributed Supply Chain Based on Blockchain

Dr. Aris Rui Huang

Founder of Chengdu SwiftChain Technology Co., Ltd.
Visiting Associate Professor of Xihua University
China



Dr. Aris Rui Huang, Founder of Chengdu Swiftchain Technology Co., Ltd., Senior system architect, Visiting associate professor of Xihua University, Columnist of "JINSE" and "8BTC" and "WHOSHIPM" and "WEIYANGX", Blockchain expert of AISINO Co., Ltd, Blockchain expert of Beijing Informationization and Industrialization International Information Technology Research Institute, The initiator and technical leader of the project "Application of Blockchain Technology to Improve China's Infectious Disease Surveillance System" of NSSFC, and the initiator and solution writer of "Blockchain-based Industrial Products Anti-counterfeit Traceability Platform" of 2020 Industrial Internet Innovation and Development Project-Blockchain Public Service Platform Project of MIIT, core team member of "Non-Bank Financial Business Credit Technology Path Research" (2019) of Baihang Credit, and former CRM system expert of AsiaInfo (China) Co., Ltd. He has participated in more than 20 large-scale domestic and foreign large-scale telecommunications, finance and blockchain industry application projects, and published many high-quality, industry-influential papers and Internet articles.

Topic of the Speech:

Numerical Modelling and Experimental Analysis of Light Weight Composite Structures with Fibrous Reinforcement

Professor Rajesh Mishra

Czech University of Life Sciences Prague
Czech Republic



Prof. Rajesh Mishra works at the Czech University of Life Sciences Prague, Czech Republic. His research areas are nanomaterials and nano-textiles, textile structural composites, green composites, nanocomposites, biomechanical engineering of fibrous structures, thermo-mechanical characterization of materials etc. He has about 165 publications in international journals and about 270 presentations in international conferences. His teaching and research activities include subjects based on nanotechnology, bio-materials, structural mechanics of fibrous structures in general and 3D woven structures in particular, textile quality characterization, engineering of textile structures, biomechanics of apparel textiles etc. He is responsible for international students education and research at the faculty of engineering. Till date he has successfully guided 5 PhD candidates leading to award of title. The graduates are highly placed in academia and industry around the world. At present a few more are continuing research in leading areas of technology. He has educational and research cooperation around the globe.

Plenary Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

The Role of Aesthetics in Scientific Research Today

Professor Li Li

Institute of Textiles and Clothing
The Hong Kong Polytechnic University
Hong Kong, China



Prof. Li Li is a Professor in the Institute of Textiles & Clothing of The Hong Kong Polytechnic University. Her research interests include design thinking, functional textile design, and advanced manufacturing. She has strong collaboration with various local and international brands and textile companies. She has successfully secured 64 projects worth a total amount of over HK\$ 84 million (around US\$ 10.8 million), published over 80 research articles in world-leading and top-tier textile journals, and held 24 patents. Her research outcome is highly recognized by both academia and industry, generating a great impact on fashion business. With her achievement, she has won 24 prestigious international awards, including the Golden Award of the 46th and 47th International Exhibition of Inventions of Geneva for two consecutive years.

Topic of the Speech:

Electrostatic Spray Coating Technology for Thermoplastic Composites

Professor Apurba Das

Department of Textile & Fibre Engineering
Indian Institute of Technology Delhi
India



Prof. Apurba Das is Professor in the Department of Textile and Fibre Engineering and Institute Chair Professor, Indian Institute of Technology, New Delhi, India. He has guided many Ph.D., M. Tech., B. Tech. students and presently guiding several students. He has published more than 300 research papers and edited/written several books/monographs and written many chapters in books. He has successfully completed more than 50 research projects from government funding agencies and carried out many consultancy projects from industries. He has developed several instruments for characterization of textile materials and filed 12 patent applications. His main areas of teaching and research interest are fibre reinforced composites, clothing comfort, sports textiles, nonwovens and technical textiles, protective textiles, etc. He is the recipient of Teaching Excellence Award. He has international research collaborations with universities from different countries like, Germany, Poland, Hungary, Slovenia, Italy, Portugal, China, South Korea, UK, Hong Kong, Croatia etc.

Plenary Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Fabric Performance during (IR) Heat Radiation Exposure

Professor Uwe Reischl

Boise State University
USA



Prof. Uwe Reischl is a Professor in the Department of Public Health and Populations Science at Boise State University, USA. Dr. Reischl is a public health physician with research interests in occupational health, ergonomics and human factors. He received his undergraduate and graduate training at the University of California at Berkeley obtaining the Ph.D. degree in Environmental Health Sciences from the School of Public Health. He received his medical training at the University of Ulm in Germany where he obtained the M.D/ Ph.D. degrees in clinical medicine. Professor Reischl's current international research collaborations include projects with the University of Zagreb in Croatia and Khalifa University in Abu Dhabi, United Arab Emirates.

Plenary Medal Lectures - Thursday, September 8, 2022

Topic of the Speech:

Electrospun Organic and Inorganic Nanofiber for Tissue Engineering

Professor Xiumei Mo

Donghua University
China



Prof. Xiumei Mo is a professor of Biomaterials in Donghua University. She once had two years Postdoc experience in Kyoto University, three years research fellow experience in National University of Singapore, one year visiting professor experience in Aachen University of Applied Science and Technology. Her research work is electrospinning nanofiber and nanoyarn for different tissue regeneration, including skin, tendon, nerve, blood vessel, bone and cartilage tissue regeneration. She has published more than 450 papers, the papers were cited more than 11,000 times, her H-index is 51. She edited 11 books/chapters, she got the Science Technical Invention Awards from Shanghai Municipality(2008), Science and Technology Progress Awards from State Department of People's Republic of China(2009), and Nature Science Awards from Shanghai Government(2015). She is the Committee Members of China Biomaterials Society and Vice Chairman of China Composite Materials Society Super-fine Fiber Branch.

Plenary Medal Lectures - Thursday, September 8, 2022

Topic of the Speech:

Exoskeleton with Enhanced Autonomy and Intelligence for Effective home-based Rehabilitation

Academician Professor Shane Xie

School of Electronic and Electrical Engineering
University of Leeds
UK



Academician Prof. Shane Xie, Ph.D., FEngNZ, FIMechE and FASME, is the Chair of Robotics and Autonomous Systems and Director of the Rehabilitation Robotics Lab at the University of Leeds since 2017, and he was the Director of the Rehabilitation and Medical Robotics Centre at the University of Auckland, New Zealand (NZ, 2002-2016). He has more than 28 years of research experience in healthcare robotics and exoskeletons. He has published more than 400 refereed papers and 8 books in rehabilitation exoskeleton design and control, neuromuscular modelling, and advanced human-robot interaction. He has supervised more than 15 postdocs, 75 PhDs and 80 MEs in his team with funding of more than £27M from five countries since 2003. His team has invented three award-winning rehabilitation exoskeletons. He is an expert in control of exoskeletons, i.e. impedance control, adaptive control, sliding mode control, and iterative learning control strategies. He has received many distinguished awards including the David Bensted Fellowship Award and the AMP Invention Award. He is an elected Fellow of Engineering New Zealand, and Fellow of IMechE, UK, and the Technical Editor for IEEE/ASME Transaction on Mechatronics.

Topic of the Speech:

Transplantation of Limbal Corneal Stem Cells Grown in Vitro

Professor Budimir Mijovic

Faculty of Textile Technology
University of Zagreb
Croatia



Prof. Budimir Mijovic is employed as a full time professor and researcher at the Department of Basic Natural and Technical Sciences, Laboratory of Nanotechnology, at the University of Zagreb, Faculty of Textile Technology, Croatia. He finished his PhD degree in the field of biomaterials and bioengineering at the Faculty of Mechanical Engineering and Naval Engineering, University of Zagreb. After his PhD his research was focused on the mechanics of blood vessels and biorheology. His scientific areas of interest are: nanofiber electrospun biomaterials development for accelerated wound healing, design of multifunctional dermal electrospun scaffolds, investigation of new types of matrices for 3D cell culture, study of human limbal epithelial cells of electrospun nanoscaffold materials, human limbal epithelial cells cultured on versatile types of scaffolds.

Plenary Medal Lectures - Thursday, September 8, 2022

Topic of the Speech:

The Mechanical Properties of Carbon/Aramid Composites with Three Different Molding Methods

Professor Seung Kook An

Pusan National University
Korea



Prof. Seung Kook An obtained his Ph.D. at the Fiber and Polymer Science Program, North Carolina State University in 1992. After working at National Industrial Research Institute for two years, he had been a professor of the department of Organic Material Science and Engineering at Pusan National University until 2020. He served as a director of Research Institute of Industrial Technology from 2011 to 2013, and has been the director of RIS in textile material for transportation vehicle from 2011. He has been the chairman of Korea Association of Tech Textile Industry (KATTI) from 2017. He served as the Korean delegate for ISO TC94/SC13 and ISO TC94/ SC14 for 20 years. He served as a Vice President of Korean Fiber Society in 2010 and 2018. His research areas are protective clothing, physical properties of industrial textile products, comfort properties of industrial fabrics.

Topic of the Speech:

Sport Infrastructure Development and Its Challenges for Healthy City in China

Dr. Jianquan Cheng

Reader of Urban Studies
deputy director of MMU Crime and Well-being Big Data Centre
Manchester Metropolitan University
UK



Dr. Jianquan Cheng works at Department of Natural Sciences, Faculty of Science and Engineering, Manchester Metropolitan University (MMU). Jianquan is a Reader in Urban Studies who studied and worked in China, Netherlands and Ireland before joining Manchester Metropolitan University in 2006. Jianquan is also a deputy director of MMU Crime and Wellbeing Big Data Centre at which he is particularly in charge of urban analytics, healthy city and China's urban studies. Jianquan's main research interests include spatial accessibility, geographical mobility, China's urbanization and healthy city. Recently he is exploring the roles of various technologies for supporting data-driven and evidence-based planning and governance of healthy city, including video analytics and VR/AR. Jianquan has experienced lockdown in both Wuhan and Manchester cities so he has conducted comparative studies on impacts of COVID19 in both countries. His previous roles include Associate Professor, Wuhan University, China (2000-2006). Jianquan is exploring how the sport, green and digital infrastructures promote the health and wellbeing of residents in the English and Chinese cities. He is currently an associate editor for International Review for Spatial Planning and Sustainable Development.

Plenary Medal Lectures - Thursday, September 8, 2022

Topic of the Speech:

Skin Bioengineering Measurement Technologies

Professor Perry Xiao

London South Bank University
UK



Prof. Perry Xiao is a Professor and Course Director in the School of Engineering at London South Bank University. He got his BEng degree in Opto-Electronics, MSc degree in Solid State Physics, and PhD degree in Photophysics. He is also a fellow of The Institution of Engineering and Technology (FIET) and a senior fellow of Higher Education Academy (SFHEA). His main research interest is to develop novel infrared and electronic sensing technologies for skin measurements and industrial Non-Destructive Testing (NDT). He is also a Director and Co-founder of Biox Systems Ltd, a university spin-out company, which designs and manufactures a patented, novel, condenser-chamber TEWL measurement technique - AquaFlux®, and capacitive image instrument - Epsilon. AquaFlux and Epsilon have been used in over 200 organizations worldwide, including universities, hospitals and leading international cosmetic companies such as Unilever, P&G, and L'Oreal, Johnson & Johnson, GSK, Boots, Colgate-Palmolive and Pfizer, etc.

Topic of the Speech:

Assistive Technologies in Healthcare

Professor Hongnian Yu

Edinburgh Napier University
UK



Prof. Hongnian Yu has held several research grants worth about ten million pounds from the UK EPSRC, the Royal Society, and the European, AWM, as well as from industry. He has managed several international large consortiums as a coordinator. Examples are 1) coordinator (PI) of an EPSRC funded £158K international network project on Human Adaptive Mechatronics which includes 7 Japanese partners and 7 UK partners; 2) coordinator of the EU funded 3.05 million Euro Erasmus Mundus FUSION project which has 20 international partners including 11 Asia partners and 9 partners from Europe; 3) coordinator of the EU funded €310.8 K Marie Curie project, 4) coordinator of the EU funded €909K SMOOTH - Smart robots for fire-fighting project etc. Prof Yu has strong research collaboration with partners from over 30 countries, such as China, France, Germany, Hungary, India, Italy, Japan, Romania, Malaysia, Thailand, and UK.

Plenary Medal Lectures - Thursday, September 8, 2022

Topic of the Speech:

Wearable Technology to Support Self-management of Chronic Conditions

Professor Huiru Zheng

Ulster University

UK



Prof. Huiru Zheng is a Professor of Computer Science at the School of Computing, Ulster University. She is currently leading the Data Analytics and Systems Theme in AI Research Centre at Ulster University. Within her broad interests in machine learning, Prof. Zheng has research interests and expertise in integrative data analysis, complex network analysis, pattern recognition, and applications to biology, medicine, and healthcare. Her current research includes network analysis in metagenomics, agriculture, FinTech and similar diseases, mHealth in gait analysis, mental health, and self-management of chronic diseases. Her research has been supported by a number of funding bodies, such as the European Commission, COST Action, UK Research Council, Innovate UK, Invest NI, Depart of Economy, and industries.

Topic of the Speech:

Light-induced Giant Magnetoresistance and Hall Resistance in Intrinsic Silicon

Professor Bingqing Wei

University of Delaware

USA



Prof. Bingqing Wei is a Professor in the Department of Mechanical Engineering at the University of Delaware, USA. He received his Ph.D. degree in 1992 from Tsinghua University in Beijing, China. Dr. Wei was a faculty member at Louisiana State University from 2003 to 2007 and at Tsinghua University from 1992 to 2001. He was a Research Scientist at Rensselaer Polytechnic Institute from 2000 to 2003, and a visiting scientist at Max-Planck-Institut für Metallforschung, Stuttgart, Germany in 1998 and 1999. Dr. Wei is among Highly Cited Researchers from Clarivate for his research on nanomaterials that enable energy conversion and storage.

Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Quantitative Evaluation of the Odor-protection Efficiency of a Face Mask by Physiological Measurement

Professor Chiyomi Mizutani

Otsuma Women's University
Japan



Prof. Chiyomi Mizutani received Ph.D. degree from Shinshu University in Textile Engineering. She is a professor in department of clothing and Textile at Otsuma Women's University in Japan. She is interested in the effects of functional fibers on the human body, related to odors and deodorant fibers, antibacterial fibers and itchy of skin, etc.

Topic of the Speech:

Biofunctional Textiles for Hygiene and Medical Applications Using Eco-friendly Methods

Dr. Prabhuraj Venkatrman

Manchester Fashion Institute
Manchester Metropolitan University
Manchester, UK



Dr. Prabhuraj Venkatrman is a Senior Lecturer in Textile Technology and a Chartered Fellow of the Textile Institute (CText FTI), with a specific interest in Technical Textiles, focusing on designing and developing functional apparel and high-performance textiles. He is also the Research Degrees Coordinator for Manchester Fashion Institute, supporting postgraduate researchers and admissions.

Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Shielding Effectiveness Analysis of Electromagnetic Shielding Clothing for Pregnant Women based on Finite Element Method

Dr. Long Wu

School of Apparel and Art Design
Xi'an Polytechnic University
China



Dr. Long Wu obtained his Ph.D. degree from the Hong Kong Polytechnic University in 2013. He is currently serving as an associate professor in the School of Apparel and Art Design of Xi'an Polytechnic University. He teaches subjects about Apparel Production Technique, Apparel Machinery, Anthropometric Technology and Application, etc. As the main participant of the National Natural Science Foundation of China in 2013 (61303120), Dr. Wu carried out research work in Shaanxi Union Research Center of University and Enterprise for Apparel Intelligent Design and Manufacturing. Over the last several years, he received an outstanding student papers competition award in TBIS 2011 and an outstanding research papers competition award in TBIS 2014. Also, Dr. Wu was a member of the expert committees of the Garment Industry Association in Shaanxi Province between 2016 and 2019. Funded by China Scholarship Council in 2019, Dr. WU became a visiting scholar in the School of Fashion and Textiles at RMIT University in Melbourne, Australia from October 2019 to May 2020. In 2021, he was appointed the vice director of the Garment Customization Committee of China National Garment Association (CNGA).

Topic of the Speech:

Triboelectric Yarns with Electrospun Functional Polymer Coatings for Wearable Energy Harvesting and Sensing Applications

Dr. Tommaso Busolo

University of Cambridge
UK



Dr. Tommaso Busolo is a NanoDTC Translational Prize Fellow in the Bioelectronics Lab at the University of Cambridge. He is currently developing wearable biosensors for vaginal health monitoring. In 2021, Tommaso received his PhD in smart textiles for energy harvesting from the University of Cambridge under the supervision of Prof Sohini Kar-Narayan. He holds an MEng degree in materials science from the University of Manchester and an MRes degree in Nanotechnology from the University of Cambridge. Alongside his academic career, Tommaso has worked as a materials engineer in the Mercedes Formula 1 team and in the medical devices unit at TTP. He is a strong advocate for closing the gender data gap in female health and has co-founded ALMA, a startup developing at-home vaginal microbiome tests.

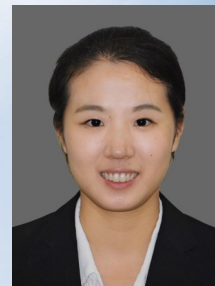
Medal Lectures - Tuesday, September 6, 2022

Topic of the Speech:

Wearable Triboelectric Nanogenerator for Human Motion Sensing and Energy Harvesting

Dr. Chunhong Zhu

Faculty of Textile Science and Technology
Shinshu University
Japan



Dr. Chunhong Zhu is an Associate Professor in the Department of Advanced Textile and Kansei Engineering, Faculty of Textile Science and Technology, Shinshu University, Japan. She received her Master's degree from Soochow University in 2010, and Ph.D. from Shinshu University in 2014. Her research interests include three-dimensional fabrics, functional and smart textiles.

Topic of the Speech:

Fibre Surfaces Catalytic Engineering for Textile Functionalization and Wearable Electronics

Dr. Xuqing Liu

University of Manchester
UK



Dr. Xuqing Liu is a Tenured Research Fellow in Textile Bioengineering and Science and leading a research group in fibre chemistry in University of Manchester. His group utilizes the basic principles in chemistry, material sciences, textiles and fashion, to enable novel applications and development of flexible, stretchable electronics, energy devices and functional fashion. More than 80 research papers have been published in high-quality journals, such as Advanced Materials, Advanced Functional Materials, Nano Letters, Small, and ACS Nano. Dr. Liu is the Chairman of the Chinese Textile and Apparel Society (CTAS—UK), and a committee of the Society of Chemical Industry (UK), Chinese-UK group. He is the Fellow of the Royal Society of Chemistry, Fellow of the Royal Society of Arts, and Fellow of the Higher Education Academy. He is serving on the Editorial Boards of Advanced Fiber Materials, SmartMat, Energy & Environmental Materials.

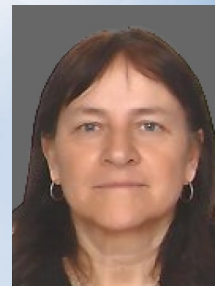
Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Friction Dynamic and Heating of Textiles at High Speeds

Dr. Dana Kremenakova

Dept. of Material Engineering
Faculty of Textile Engineering
Technical University of Liberec
Czech Republic



Dr. Dana Kremenakova Research in the field of thermal transport properties and barrier properties of fibrous structures. Development of special metrology, application of image analysis. Prediction of geometrical and mechanical properties of fibrous assemblies. Modeling of textile structures in line fiber – yarn – fabrics. Prediction of thermal comfort. Optical and mechanical properties of side emitting polymeric optical fibers and their application in textile structures. Special properties of metalized lightweight nonwovens. Teaching subjects: Experimental Data Analysis, Metrology and quality evaluation, Textile Testing, Computer Aided Textile Design, Experimental Analysis of Yarn Structure, Cotton spinning, Wool spinning.

Topic of the Speech:

Vibration Isolation and Softness of Knitted Spacer Fabric with Silicone Inlay

Dr. Annie Yu

Kyoto Institute of Technology
Japan



Dr. Annie Yu is an Assistant Professor in the Faculty of Fiber Science and Engineering, Kyoto Institute of Technology, Japan. She obtained her Ph.D. from the Institute of Textiles and Clothing, the Hong Kong Polytechnic University in 2015. Her main research interests include the design of novel knitted fabrics and functional textiles. She also specialises in experimental design and evaluation of clothing fit and comfort, physiological and psychological responses of human participants to different types of textiles and clothing products, as well as formulation of simulation models to predict garment-skin pressures.

Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Application of Porous Activated Carbon Structures for Deactivation of SARS-Cov-2

Dr. Mohanapriya Venkataraman

Technical University of Liberec

Czech Republic



Dr. Mohanapriya Venkataraman is a passionate textile material scientist, working as an Assistant Professor at the Department of Material Engineering, Faculty of Textile Engineering, Technical University of Liberec, Czech Republic. Her teaching and research areas include Textile Materials, Thermodynamic Analysis, Micro and Nanoporous Materials, Heat Transfer, Polymers, and Composites. She is a leader and team member of multiple international research projects funded by the EU, the Technology Agency of the Czech Republic (TA ČR), and the Czech Science Foundation (GA ČR). She has authored and co-authored over more than 75 scientific papers in peer-reviewed journals; more than 90 conference publications; more than 15 keynote speeches; and more than 35 book chapters. She has won international recognition as “Outstanding Researcher” in multiple forums like SGS, TBIS, etc., She was recently profiled in TA.DI magazine of Technology Agency of the Czech Republic (TA ČR) as 1 of 3 female researchers as an example breaking the stereotype of a traditional scientist.

Medal Lectures - Thursday, September 8, 2022

Topic of the Speech:

How We Can Make Attractive Clothing Using Various Patternmaking Methods and Dress Forms

Dr. KyoungOk Kim

Faculty of Textile Science and Technology

Shinshu University

Japan



Dr. KyoungOk Kim is an Associate Professor in Department of Advanced Textile and Kansei Engineering, Faculty of Textile Science and Technology, Shinshu University and Division of Fashion and Smart textile, Institute for Fiber Engineering (IFES), Interdisciplinary Cluster for Cutting Edge Research (ICCER), Shinshu University, Japan. She received her Ph.D. from Shinshu University in Textile Engineering. Her research interests are clothing engineering, textile engineering, and kansei engineering for both apparel and textile fields.

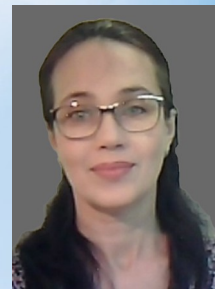
Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Assessment of Knitwear Comfort via 3D Modeling and Simulation

Dr. Tetiana Yelina

Department of Textile Technology and Design
Kyiv National University of Technologies and Design
Ukraine



Dr. Tetiana Yelina is an associate professor in Kyiv National University of Technologies and Design, Department of Textile Technology and Design. Her main research interests include 3D modeling of knitted fabrics and articles, knitwear comfort, manufacturing of textile materials with predetermined properties. She has published more than 40 papers in peer-reviewed national and international journals, presented more than 100 papers at scientific conferences.

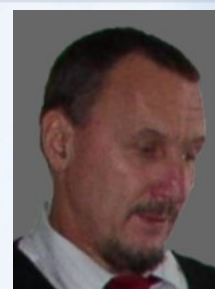
Workshop HYHI- Thursday, September 8, 2022

Topic of the Speech:

HYHI project part I Flexible hierarchical structures

Professor Jiri Militky

Textile Faculty
Technical University of Liberec
Czech Republic



Prof. Jiri Militky, Prof. MSc. PhD., EURING, FEA. Born 16/06/1949, employment: Technical University of Liberec, Czech Republic. Work experience: 2019 – head of PhD studies board at Textile Faculty, 2012 head of Department of Material Engineering, 2009 - 2011 Vice dean for foreign affairs, 2003-2008 Dean of Textile Faculty, 2000 - 2002 Vice rector for science and foreign affairs at TU Liberec, 1994 - 1999 Dean of Textile Faculty, 1991- 1993 Vice rector for foreign affairs at TU Liberec, 1991 head of Department of textile materials, 1976 - 1989 Research Institute of Textile Finishing, head of scientific development dept., 1973- 1976 State Textile Research Institute Liberec – research worker. Scientific orientation: Modeling of fibrous structures, textile metrology, statistical data treatment, quality control, textile material engineering. Publication activities: 26 books, 481 articles, H index (SCOPUS) 31

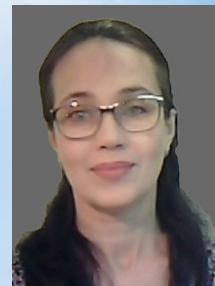
Medal Lectures - Wednesday, September 7, 2022

Topic of the Speech:

Assessment of Knitwear Comfort via 3D Modeling and Simulation

Dr. Tetiana Yelina

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Dr. Tetiana Yelina is an associate professor in Kyiv National University of Technologies and Design, Department of Textile Technology and Design. Her main research interests include 3D modeling of knitted fabrics and articles, knitwear comfort, manufacturing of textile materials with predetermined properties. She has published more than 40 papers in peer-reviewed national and international journals, presented more than 100 papers at scientific conferences.