

Plenary Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

Is Recycling Doing a Good Job for Our Sustainable Future?

Professor Kanji Kajiwara

Shinshu University
Japan



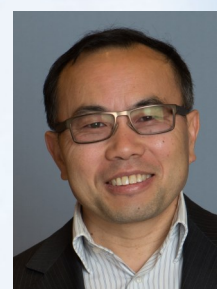
Prof. Kanji Kajiwara is now a Special Project Professor for Fiber Innovation Incubator of Shinshu University. He has started his carrier as a polymer physicist at Kyoto University, special-ized in the field of dilute solution properties of synthetic and bio-polymers including critically branched polymers. A natural extension of this study led to the structural characterization of gels, where a small-angle X-ray scattering method has been fully explored by the use of synchrotron radiation. In 1988, he joined Kyoto Institute of Technology and was engaged more in fiber and textile sci-ence, and served as a Governmental adviser in the policy making committee for the fiber/textile technology strategy. He moved to Otsuma Women University in 2002 in order to refurbish the education system for female talents in the textile and apparel field. Professor Kanji Kajiwara is now a Research Fellow at Fii (Fiber Innovation Incubator) of Shinshu University and an AREC (Asama Research Extension Center) Coordinator.

Topic of the Speech:

Textile Sustainability ?Past, Present and Future

Professor Xugai Wang

The Hong Kong Polytechnic University
HongKong, China



Prof. Xungai Wang is a Global STEM Scholar and Chair Professor of Fiber Science and Technology at the Hong Kong Polytechnic University. He previously served as the Pro Vice-Chancellor (Future Fibers) at Deakin University, Australia. Professor Wang is the current Editor-in-Chief for the Journal of the Textile Institute. He is a recipient of the Fiber Society Distinguished Achievement Award and the H&M Foundation Global Change Award. Professor Wang's research interests are in natural fibers, yarn technology, sustainable and functional textiles, as well as clean processing technologies.

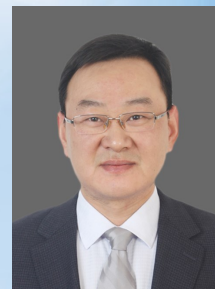
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Topic of the Speech:

Ionogel Electroactive Materials and Wearable Devices

Professor Wei Chen

Zhejiang Sci-Tech University
China



Prof. Wei Chen is now a Professor and National High-Level Talent at Zhejiang Sci-Tech University. He obtained PhD in Condensed Matter Physics from Chinese Academy of Sciences in 2001. From 2001 to 2006, he worked as Postdoc at University of Science and Technology of China, and The Hong Kong Polytechnic University respectively. From 2006 to 2018, he was a Professor at Suzhou Institute of Nano-tech and Nanobionics, Chinese Academy of Sciences. From 2018 to 2023, he worked as a Full Professor at The Hong Kong Polytechnic University. In June 2023, Professor Chen joined Zhejiang Sci-Tech University. He is internationally recognized for his leading research in nanotechnology based smart materials and devices. He has published more than 150 papers in high-impact journals including Nat. Commun., Adv. Mater., Angew. Chem. Int. Ed., Mater. Sci. Eng. R: Rep., Prog. Polym. Sci., etc. All papers have been cited more than 15,000 times, h-index is 59.

Topic of the Speech:

Fighting the Long-Term Health Impact: Cancer and Hazardous Substance Exposure in Firefighters and Understanding

Professor Guowen Song

College of Human Science
Iowa State University
United States



Prof. Guowen Song is the Professor and the Noma Scott Lloyd Chair in the Department of Apparel, Event and Hospitality Management at Iowa State University's College of Human Sciences. He received his Ph.D. degree in Textile Engineering, Chemistry and Science, at North Carolina State University's College of Textiles in Raleigh, North Carolina. Song's academic interest is functional textiles and protective clothing for human safety and health. His interdisciplinary research team applies a combined modeling and lab simulation approach to the study of PPE. The research covers novel textile materials, system design, the simulation of hazards, PPE contamination, the analysis and prediction of clothing performance, as well as the development of new methods and standards. Dr. Song has published over 130 scientific papers in peer-reviewed journals and conference proceedings. He has authored four books and contributed a dozen chapters to books in his field of study.

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Topic of the Speech:

Supercritical Fluid Technology-based Decellularized Extracellular Matrix for Biomedical Application

Professor Aizheng Chen

Huaqiao University
China



Prof. Aizheng Chen received his Ph.D. degree in Biomedical Engineering from Sichuan University in 2007. After postdoctoral research at The Hong Kong Polytechnic University for two years, he joined Huaqiao University, where he is now a professor and vice dean of College of Chemical Engineering, and director of Institute of Biomaterials and Tissue Engineering. He also serves as a committee member of Chinese Society for Biomaterials, and the secretary-general of Chinese Society for Biomaterial-Composite Materials Branch. He was a visiting research professor for a year in Prof. Ali Khademhosseini Lab at Harvard medical school. He has been granted 9 National projects, and has published more than 150 peer-reviewed publications; His research interests are the application of biomaterials for drug delivery systems using supercritical fluid technology, tissue engineering and regenerative medicine. He was listed in 2020 National Hundred, Thousand and Ten Thousand Talent Project and awarded with an honorary title “Young and mid-aged expert with outstanding contribution”.

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 a Professor in the Department of Textile and Fibre Engineering; and an Institute Chair Professor at the 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 350 research papers, edited/written several books/monographs, and written many chapters in books. He has completed more than 60 research projects from government funding agencies and carried out many consultancy projects for industries. He has developed several instruments for the characterization of textile materials and filed 18 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 the 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.

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Topic of the Speech:

Key Technologies and Applications in the Research and Development of High-Performance Clothing for Winter Olympic Training Competitions

Professor Li Liu

Beijing Institute of Fashion Technology
China



Prof. Li Liu is affiliated with Beijing Institute of Fashion Technology and holds advisory and part-time doctoral supervisor roles at Tianjin Polytechnic University. She serves as a key scientist in the General Administration of Sport's preparation for the 2022 Beijing Winter Olympics, holding the title of "China Ice and Snow Scientist." Additionally, Professor Liu is the Director of the Fashion Technology Research Institute at Beijing Institute of Fashion Technology. Over the past five years, she has published over 80 papers and successfully completed more than 50 projects. In 2019, she led the National Key R&D Program project, focusing on the development of high-performance clothing for winter sports and training competitions. This initiative contributed to the research and development of training and competition attire for nine national sports teams, resulting in 5 gold, 2 silver, and 2 bronze medals for the Chinese sports delegation at the 2022 Winter Olympics.

Topic of the Speech:

Heat Retention of Fabrics Composed of Moisture-absorbing Heat-generating Fibers and Wear Comfort

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.

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Topic of the Speech:

Developing a Green Development Evaluation System for Ethiopian Textile and Garment Industrial Parks

Professor Xuemei Ding

College of Fashion and Design
Donghua University
China



Prof. Xuemei Ding is a Professor in College of Fashion and Design, Donghua University. Her main teaching and research interests include Sustainable development in textile industry, as well as Fabric care theory & technology, which are supported/sponsored by National Natural Science Foundation of China (NSFC), World Wide Fund For Nature (WWF), Ministry of Science and Technology of China (MOST), Science and Technology Commission of Shanghai Municipality (STCSM), Clothing Industry Training Authority of Hong Kong (CITA), Procter & Gamble Co. (P&G), Unilever Co., Invista Textile Co. (INVISTA), BSH Electrical Appliances Co., Ltd. (BSH), HAIER Group, MIDEA Group, Jide Group, Esquel Group, Panasonic Co., Arcelik Group and so on. She has been invited as keynote speakers and/or session chairs over 40 industrial or academic conferences. She has made numerous contributions including more than 400 academic journal papers, conference papers and book chapters, more than 30 Chinese Patents as well as 16 textile industrial standards.

Topic of the Speech:

Comparison of Subjective and Objective Assessments of Japanese People's Feeling of 'Out of Place' with Their Clothing

Professor Tamaki Takada Mitsuno

Shinshu University
Japan



Prof. Tamaki Takada 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 project professor, former 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.

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Topic of the Speech:

Wireless Temperature Sensing Yarn with UHF RFID Helix Dipole Hybrid Antenna for Respiratory Monitoring

Professor Jiyong Hu

Donghua University
China



Prof. Jiyong Hu, received his Ph.D. in textile engineering from Donghua University in 2008, and as a visiting student studied in ENSAIT, France between 2006-2007. Prior to joining the Donghua university faculty in 2011, he was a postdoctoral researcher in the Hong Kong polytechnic university. He has been engaged in the research and development of functional textiles, especially in flexible fiber/textile electronics and weaving technology of technical fabric. His researches are financially funded by the national key research and development project, the NSFC, NSFC of Shanghai, China post-doctoral science foundation and enterprise joint projects. He has won the science and technology progress award of the textile industry federation and the textile teaching reform achievement award. He has published more than 200 peer-reviewed papers, owned more than 40 invention patents, and published a monograph supported by the national publishing foundation and two textbooks.

Topic of the Speech:

Methodology and Parameters Affecting the Clothing Comfort

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 was the director of RIS in textile material for transportation vehicle from 2011 to 2021. 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.

Plenary Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Can Photoelectric Conversion Efficiency of Solar Cells Be Doubled?

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.

Topic of the Speech:

Impact of Cosmetic Hairspray on Fabric Flammability

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. Uwe 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 Uwe Reischl's current international research collaborations include projects with the University of Zagreb in Croatia and Khalifa University in Abu Dhabi, United Arab Emirates.

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Topic of the Speech:

Synthesis and Large-Scale Assembly of Piezoelectric Biomaterials and Devices

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.

Topic of the Speech:

Structure Formation, Theoretical Analysis and Application of a Series of Auxetic Textiles

Professor Zhaoqun Du

College of Textiles
Donghua University
China



Prof. Zhaoqun Du obtained his Ph.D. from Donghua University and B.S. from Zhongyuan University of Technology. He has undertaken and completed over 10 projects from National Natural Science Foundation of China, Fok Ying Tung Education Foundation, and Ministry of Education of China. By acquiring substantial research funding support from government funding bodies and industry, he presented Structure formation and theoretical analysis of a series of Auxetic textiles (yarns, fabrics and composites), Comprehensive Handle Evaluation System For Fabrics and Yarns, Theoretical Analysis of Mechanical and Heat/Mass Transferring Behavior of Fiber Assembly, Finite Element Analysis and Simulation of Textile Products, Characterization and Modeling of Structure and Behavior of Textile Materials, and Design and Characterization of Functional and Smart Textiles. He has published over 100 papers and been authorized over 100 patents. Some of the achievements are awarded by National Key Research and Development Program of China and China National Textile Industry Association. He has taught various courses at undergraduate and postgraduate levels including Physics of Textiles, Textile Materials and Measurement, Nanocomposite Science and Technology.

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Topic of the Speech:

Automatic Identification of Textile Fibre Under Optical Microscope Using Neural Network Recognition Technology

Professor Lijing Wang

RMIT University
Australia



Prof. Lijing Wang works at RMIT School of Fashion and Textiles, Australia. He received his PhD degree from the University of New South Wales, Australia. He worked as a Postdoctoral Research Fellow at RMIT University in 1999 and 2000, followed by more than 8 years working at Deakin University as the Research Academic, then Senior Research Fellow. Since 2009, he returned to RMIT University. Prof Lijing Wang currently leads the Smart Textiles research cluster and Saving Lives research stream at the Centre for Materials Innovation and Future Fashion. He has been the chief investigator in more than 30 funded research projects, and his publications reached more than 240. His key research areas of interest are smart and high-performance textiles; wearable technology; protective garments; clothing comfort; fibres and polymers material science, engineering and modelling; material functional design; and clothing supply chain sustainability.

Topic of the Speech:

Calotropis Gigantea Fiber and Its Eco-functional Textiles

Professor Gang Li

College of Textile and Clothing Engineering,
Soochow University
China



Prof. Gang Li is a full professor at the National Engineering Laboratory for Modern Silk, Soochow University of China. He is the 15th high level talent of “Top six talent peaks” in Jiangsu province of China. He received MEng. from Donghua University of China, and obtained his Ph.D. in Biomedical textiles and Engineering from the Hong Kong Polytechnic University. He is also a visiting professor of Tufts University in USA. He published over 150 academic articles and issued 50 patents between 2006 and 2024. His research interests focus on biomedical materials, functional and smart textiles by combining silk-based materials, biomedical materials and textile engineering.

Plenary Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Electrospun Nanofiber and Nanoyarn for Tissue Engineering

Professor Xiumei Mo

Donghua University
China



Prof. Xiumei Mo is a professor of Biomaterials in Donghua University. She 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 16,057 times, her H-index is 67. 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), Nature Science Awards from Shanghai Government(2015), and Science Technical Invention Awards from China National Textile Industry Council (2022). She is the Committee Members of China Biomaterials Society and Vice Chairman of China Composite Materials Society Super-fine Fiber Branch.

Topic of the Speech:

Volumetric Bioprinting of Protein-based (Bio)inks for Tissue Engineering

Professor Maobin Xie

Guangzhou Medical University
China



Prof. Maobin Xie received his PhD degree of biomedical engineering from The Hong Kong Polytechnic University, Hong Kong, China in 2016, and then works as post-doc research fellow at Harvard University, Boston, USA from 2019-2021. He is now a professor at Guangzhou Medical University, Guangzhou, China. His research interests include 3D (bio)printing and biomaterials, especially focuses on the technology and (bio) inks development of volumetric additive manufacturing as well as the related biomedical applications. He has published over 30 peer-reviewed research work include Nature Communications, Science Translational Medicine, Proceedings of the National Academy of Sciences USA, Advanced Materials, Advanced Functional Materials, STAR Protocols, Biomaterials, etc. He has applied for 16 Chinese patents and 2 PCT patents. He serves as reviewers for over 10 international journals include Advanced Science, Advanced Healthcare Materials, ACS Nano, Applied Materials Today, Nanoscale, etc.

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Topic of the Speech:

Research on Human Thermal Regulatory Model based on Real Human Geometry and Arterial Vascular Tree

Dr. Fengzhi Li

Nanjing University of Aeronautics and Astronautics
China



Dr. Fengzhi Li serves as an associate Prof (Dec. 2006 to present) at the department of Man-Machine and Environment Engineering, College of Aerospace Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China. Prior to working at NUAA, he worked as a Research Assistant, Associate in Hong Kong Polytechnic University, Hong Kong. He served as a Research Associate of Department of the Material, The University of Manchester, UK, 2020. In the past, he proposed the model of heat and moisture transfer in clothed human body system by the FEM to consider the 3-D real geometry of human body. Also he proposed a mask model of heat moisture and virus transfer, etc. And he published more than thirty papers in these fields, meanwhile, he chaired and participated in many of the National Natural Science Foundation.

Topic of the Speech:

Enhancing CO₂ Capture and Utilization: A Dual-Function Approach Using Silk Fibroin Hydrogels and Carbon Absorbents

Professor Xiaoqin Wang

Soochow University
China



Prof. Xiaoqin Wang obtained his Bachelor's degree on Microbiology in Shandong University in 1991, Master's degree on Molecular Biology in Peking Union Medical College in 1997, PhD's degree on biochemistry in the University of Groningen, the Netherlands, in 1998, and postdoc training in Prof. David Kaplan's lab on biomedical engineering at Tufts University, the US, during 2005-2009. Prof. Wang was appointed as a research assistant professor of Tufts University in 2011, a distinguished professor of Soochow University in 2012. Prof. Wang has published over 60 peer-reviewed articles and more than 30 US and Chinese patents, mainly on silk biomaterials for tissue engineering and drug delivery. Prof. Wang is also actively engaged in the commercialization of research results. He is the co-founder of biotech companies, Ekteino Laboratory and Cocoon Biotech Inc., in the US, and is also the founder and president of Simatech Inc., a Chinese startup company located in Suzhou.

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Topic of the Speech:

Color Construction of Textile Fiber Materials

Professor Liangjun Xia

Wuhan Textile University
China



Prof. Liangjun Xia received his master degree from Wuhan Textile University under the supervision of Prof. Weilin Xu, and obtained Ph.D. degree from Deakin University, Australia. His current research interests mainly include the color and functionalization construction of textile fiber materials for industrial applications. He was honored with the Hundred Talents Program of Hubei Province, China. Recently, Dr. Liangjun Xia has hosted and participated more than 10 research projects. He also has an extensive track records of 1 edited book and more than 30 publications in advanced textile materials and engineering journals including Nature Communications, Nano Energy, Chemical Engineering Journal, Green Chemistry, Journal of Cleaner Production, ACS Applied Materials & Interfaces, Carbohydrate Polymers, and Separation and Purification Technology.

Topic of the Speech:

Solutions for Microplastics

Dr. Lei Yao

Hong Kong Research Institute of Textiles and Apparel
Hong Kong, China



Dr. Lei Yao obtained her Bachelor of Science from Zhejiang Medical University and Master of Science in Zhejiang University, China. Dr Yao received her PhD in Textile Technology from The Hong Kong Polytechnic University, Hong Kong. Her current research interests centre around: textiles-human interactions, textile technologies and industry sustainability. She is now leading a research team and doing applied research on high-performance textiles, water-less textile technologies and post-consumer textile recycle. She has considerable research experience of textile and clothing and insight into applied research, R&D roadmap and innovation strategy.

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Topic of the Speech:

Quantifying the Parasitic Capacitance of Conductive Yarns Used in High-Frequency Applications

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) of Southern University of Science and Technology (SUSTech), and by courtesy, an Adjunct Professor at the Department of Electrical and Computer Engineering (ECE) of Carnegie Mellon University. Dr. Ye is active in 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.

Topic of the Speech:

Construction and Application of Breathing All-fiber Nanogenerator

Professor Wei Fan

Xi'an Polytechnic University
China



Prof. Wei Fan is affiliated with Xi'an Polytechnic University, Xi'an, China. He is associate dean of Textile Science and Engineering College, Dean of Flexible Electronics and Intelligent Textile Research Institute, Director of Key Laboratory of Functional Textile Materials and Products of the Ministry of Education. He is the winner of the Shaanxi Outstanding Youth Science Fund project, leader of Shaanxi University Youth Innovation Team. He is mainly engaged in the design and preparation of advanced fibers and its aggregates. In recent years, he has presided over more than 30 national, provincial, bureau and enterprise cooperation projects. He has published more than 100 papers as the first author or corresponding author in Nat. Commun., Adv. Mater., and ACS Nano and other journals. He has edited 1 monograph, 1 textbook, and 1 translation. He presided over 1 second prize of Science and Technology Progress Award of Shaanxi Province. He serves as an Editorial board of Adv. Compos. Hybrid. Mater. and Young Editorial Board of Adv. Fiber. Mater.

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Topic of the Speech:

Implementation of Clothing from Conception to Design Based on the AGI's Diffusion Transformer Framework

Dr. Aris Rui Huang

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



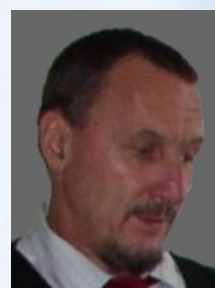
Dr. Aris Rui Huang, Founder of Chengdu Swiftchain Technology Co., Ltd., Senior system architect, Visiting associate professor of Xihua University, Columnist of "JINSE" and "8BTC" and "WHOSHIPM" and "WEIYANGX", Blockchain expert of AISINO Co., Ltd, Blockchain expert of Beijing Informationization and Industrialization 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:

Upcycling of Basic Fibrous Waste Types

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: 32 books, 563 articles, H index (SCOPUS) 36

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Topic of the Speech:

DigitalFashion: A Technology Platform for Digital Fashion Training Through Digitalization of Fabrics, Garments and Human Bodies and Fashion Design Elements

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 – University of Lille, 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 applied to textiles, fashion and textile digitalization, sensory analysis, intelligent wearable systems, computerized garment design and customized production management. He has published more than 160 papers in peer-reviewed international journals and presented more than 250 papers at international conferences, and supervised more than 40 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.

Topic of the Speech:

Computational and Analytical Studies on Sandwich Composites Reinforced with Hybrid Fibrous Materials and Bio-fillers

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 200 publications in international journals and about 300 presentations in international conferences. His teaching and research activities include subjects based on nanotechnology, biomaterials, 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 7 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 also developed educational and research cooperation with many organizations around the globe.

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Topic of the Speech:

Estimating Exercisability on Urban Greenways Using Physical Exercise Trajectory Data and Network-constrained Approach

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 is a Reader in Urban Studies at the Department of Natural Sciences, Manchester Metropolitan University (MMU) and Deputy Director of the Manchester Metropolitan Crime and Well-being Big Data Centre. Jianquan is also a visiting professor at the Key Laboratory of Environment Change and Resources Use in Beibu Gulf (Ministry of Education), Nanning Normal University, China. His research experience and expertise encompass urban growth, geographical mobility, spatial accessibility, and sustainable healthy cities, using GIS (geographic information science and system), big data, AI, and VR (virtual reality) approaches. His recent projects focus on analysing and modelling the impact of the physical and built environment on public health and well-being across various scales in Chinese and British cities, aiming to generate data-driven evidence and frameworks for spatial interventions and planning. He is also an Associate Editor for *Frontiers in Sustainable Cities*.

Topic of the Speech:

State of the Fashion Industry: Challenges, Opportunities and Barriers to Implement Circular Economy Principles

Dr. Prabhuraj Venkatraman

Manchester Fashion Institute
Manchester Metropolitan University
Manchester, UK



Dr. Prabhuraj Venkatraman (Prabhu), Senior Lecturer in Technical Textiles and Sustainable Fashion, Manchester Fashion Institute [MFI], Manchester Metropolitan University, U.K. Prabhu, a technical textile specialist and a Chartered Fellow of the Textile Institute, is a prolific researcher and a dedicated mentor. His research interests include using innovative sustainable materials, developing functional apparel, and technical textiles in improving health. He has made significant advancements in the development of bio-functional finishing of fabrics with antimicrobial properties using plant-based nano-emulsions. His other research areas include the development of socks for diabetic patients to monitor shear force or strain and prevent the formation of ulcers. His current projects include the development of smart face coverings with antimicrobial properties and the development of novel micro and nano-fibres using seaweed (alginate) for healthcare applications. His other research areas include the implementation of circular economy in textile supply chains and product life-cycle assessments. He regularly disseminates his research at international and national events and is a journal peer reviewer. As a Doctoral college Department lead [DCDL] for Manchester Fashion Institute, he plays a crucial role in postgraduate admissions and progression toward meeting the Institute's strategy of increasing the PGR community. He imparts his knowledge of sustainable fashion and product innovation to PG and UG students, inspiring the next generation of researchers. He has supervised five PhD students and four Master by Research (primary supervisor). He supervises three PhD students and two Masters projects and continues to nurture future scholars. He also serves as a personal tutor, offering pastoral guidance and supporting UG students.

Plenary Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Innovative Anti-Bed Bug Technology for Textiles and Clothing

Dr. Kai-chiu Ho

Hansk New Materials Holdings Limited
Hong Kong, China



Dr. Kai-chiu Ho has more than 45 years' work experience in textiles and clothing industry, on innovation and technology, R & D strategy, project design, management and commercialization, technology management, project funding support, etc. He is the former Director, Research and Development of the Hong Kong Research Institute of Textiles and Clothing which is funded by Hong Kong SAR Government and a Distinguished Professor of Zhijiang College of Zhejiang University of Technology, China (2016 -2019). Dr. Ho is also a Fellow Member of the Textile Institute, UK; a Senior Member of China Textile Engineering Society;; an Adjunct Professor of Institute of Textiles and Clothing of The Hong Kong Polytechnic University (2013 - 2019); Honorary Associate Professor of the Faculty of Dentistry at the University of Hong Kong; Visiting Professor at both Donghua University, Zhejiang Sci-Tech University, Soochow University, etc., as well as Honorary Consultant of the Hong Kong General Chamber of Textiles; and the Hong Kong Federation of Invention and Innovation. Dr. Ho joined Hansk New Material Holdings Limited in 2016 as the R&D Director.

Topic of the Speech:

Unleashing the Creative Potential: Textiles as Catalysts for Interdisciplinary Innovation and Commercialization Success

Professor Li Li

The Hong Kong University of Science and Technology
Hong Kong, China



Prof. Li Li is the Professor in the Division of Integrative Systems and Design of The Hong Kong University of Science and Technology, Board of Director of The Hong Kong Research Institute of Textiles and Apparel Limited, and the Fellow of Royal Society of Arts. 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 over 70 projects. The developed technologies and products are used for various commercial purposes with a total knowledge transfer value of more than HK\$ 350 million. She has also published over 120 research articles in world-leading and top-tier textile journals, and held 28 patents. With her achievement, she has won 38 prestigious international awards, including the Golden and Silver Award of the International Exhibition of Inventions of Geneva for three consecutive years.

Plenary Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Large-scale Manufacturing Optical Micro/Nano Functional Fibers for Thermal Energy Management and Collection

Professor Keqin Zhang

Soochow University
China



Prof. Ke-Qin Zhang (Ph.D. in Physics), now is a professor of polymer science and textile engineering, in National Engineering Laboratory for Modern Silk and College of Textile and Clothing Engineering of Soochow University. He got his B Sc in Physics, M Sc and Ph. D. Degree in Condensed Matter Physics from Nanjing University at 1994, 1997 and 2000 respectively. After the graduation, he conducted his postdoctoral training in Max-Planck Institute for Metal Research sponsored by the Max-Planck Postdoctoral Fellowship and National University of Singapore from 2000-2004. He was awarded by the Lee Kuang Yew outstanding postdoctoral fellowship selected by the Lee Kuang Yew foundation from the global applicants at 2005. He became the research fellow and senior research fellow in National University of Singapore from 2004 to 2009. He returned to Soochow University as a professor at 2009. And he was the awardee of the one-thousand-talent recruiting programme issued by the central government of China at 2010. He has published more than 40 papers in the prestigious journals including the Nature, Physical Review Letters, and Small etc. He also filed more than 20 patents in China and other countries. He is the life member of American Physics Society and Biophysics Section, member of Materials Research Society of America and Singapore and member of a council of Chinese Functional Materials Association. He is the Editorial Board Member of the International Journal of Textile Science and Technology.

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

Enhancing Thermal Management by Using Thermo-Reflective Materials

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 research areas include Textile Materials, Thermodynamic Analysis, Micro and Nanoporous Materials, Heat Transfer, Polymers, and Composites. She is a leader of multiple international projects funded by the EU, the Technology Agency of the Czech Republic (TA ČR), and the Czech Science Foundation (GA ČR). She has authored over 90 scientific papers; 100 conference publications; 20 keynote speeches; 35 book chapters, and 4 books and is a Guest Editor for two journals and an Associate Editor for JFBI. She is a nominee to be a panel member of the Czech Science Foundation (GA ČR). She was profiled in TA.DI magazine of Technology Agency of the Czech Republic (TA ČR) as a female researcher breaking the stereotype of a traditional scientist.

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

Effect of Structure and Material of Bilayer Knitted Fabric on Tactile Sensation and Warm Retention

Dr. Annie Yu

School of Fashion and Textiles
The Hong Kong Polytechnic University
Hong Kong, China



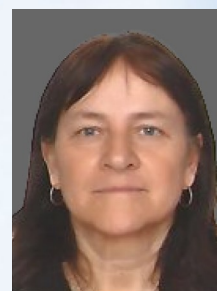
Dr. Annie Yu is an Assistant Professor in the School of Fashion and Textiles, the Hong Kong Polytechnic University. She obtained her Ph.D. from the same university in 2015. Her main research interests include the design of novel knitted fabrics and functional textiles. She also specialises in experimental 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.

Topic of the Speech:

Air Permeability and Breathability Evaluation of Textile Layers

Dr. Dana Kremenakova

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



Dr. Dana Kremenakova is Associated professor at the Department of Material Engineering, Faculty of Textile Engineering, Technical University of Liberec, Czech Republic. She is working in the field of Textile Sciences, especially textile materials and technology. She is focusing mainly on thermal transport properties and barrier properties of fibrous structures, development of special metrology, prediction of geometrical and mechanical properties of fibrous assemblies, modelling of textile structures in line fibre – yarn – fabrics, prediction of thermal comfort, optical and mechanical properties of side emitting polymeric optical fibres and their application in textile structures. She has published 8 books (author and co-author), in Scopus are indexed 114 documents, 487 citations and h-index 10. She is a co-author of 2 international patent, 3 national patents and 5 utility issues. She was a member of the research team or coordinator of about 20 research projects. She is guarantor and lecturer of the subject "Nanotechnology in the Textile Branch" within the study program WE-TEAM Erasmus Mundus Joint Master Degree (AUTEX).

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

Research on Knowledge Modeling of Business Suit Pattern Design and Development of Automated Patternmaking Platform

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:

Polypyrrole-based Conductive Fibers and Textiles for Biomedical Applications

Professor Jifu Mao

Donghua University
China



Prof. Jifu Mao has been a distinguished research fellow in College of Textiles at Donghua University since 2019. He received BS (2009) and MSc (2012) from Beijing University of Chemical Technology (BUCT), and obtained Ph.D. in Experimental Medicine from Université Laval (UL), Canada (2017). He worked in the Research Center CHU of Quebec-UL as a postdoctoral fellow (2017-2019). His current research involves electrically conducting bio-textiles, electro-mechanical bioreactors, and their biomedical applications. He has published more than 50 peer-reviewed papers in the journals such as ACS Nano, Adv Funct Mater, Bioact Mater, Adv Sci, Chem Eng J, applied for 20 patents and contributed two book chapters.

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

Cr₂Te₃-Encapsulated Liquid Metal for Wearable Sensors

Professor Xiuju Song

Zhejiang University
China



Prof. Xiuju Song is currently a Professor of School of Mechanical Engineering in Zhejiang University. She received her Doctor degree from Peking University on July, 2016. After that she has two years Postdoc experience in Prof. Manish Chhowalla's group from Rutgers University. Two year later she moved to University of Manchester as a Marie Curie Fellow and joined Prof. Cinzia Casiraghi's group. In May 2023, she joined in the Zhejiang University. She has over 30 peer-reviewed publications on high impact journals including Nature, Nature Materials, Nature Communications, ACS Nano, etc. Her H index is 24 and her works have collected 4000 citations. She is the Youth editor of the international journal of The Innovation and the Frontiers of Nanotechnology. She is also co-inventor in one patent filed in China. Her research mainly focuses on synthesis of 2D materials for wearable electronics.

Topic of the Speech:

Multifunctional Hydrogel Dressings for Accelerating
Wound Healing

Professor Zheng Zhao

Wuhan University of Technology
China



Prof. Zheng Zhao received Ph.D. degree from The Hong Kong Polytechnic University in 2013, and is currently an Professor of Materials Science and Biomedical Engineering at State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology. He was also selected as one of the top young talents in the "15551 Talent Project" of Wuhan University of Technology (2019), a member of the Biomedical Composite Materials Branch of the Chinese Society for Biomaterials, and a director of the Hubei Society of Biomedical Engineering. His research interests mainly focus on biomedical hydrogels, tissue engineering and nanoparticle drug delivery system. He had published over 30 papers in Adv Funct Mater, Biomaterials, Small, ACS Sensors, Anal Chem, etc. He is also principal investigator of the National Key Research and Development Program of China and the National Natural Science Foundation of China.

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

Piezoelectric Poly-L-Lactic Acid Film-based Wearable Sensors

Dr. Lu Jin

Yiwu Research Institute of Fudan University
China



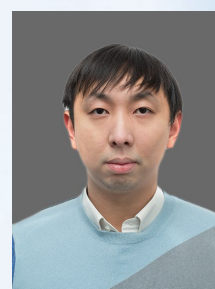
Dr. Lu Jin is an Associate Professor at Yiwu Research Institute of Fudan University in China. He received his Ph.D. degree from the Department of Materials at The University of Manchester, which he pursued with the support of a CSC scholarship. Prior to this, he completed his M.S. degree at Dankook University in South Korea. After his master's graduation, he accumulated research experience at several institutions, including the Personal Protective Equipment Center in South Korea, The Hong Kong Polytechnic University in China, and Kyung Hee University in South Korea, actively participating in various international scientific research projects. His research interests lie in the piezoelectric thin-film materials and their novel applications, with a primary focus on the utilization of piezoelectric poly-L-lactic acid (PLLA) materials in wearable sensors for air flow detection, strain sensing, and motion recognition. The main research achievements include the design and development of the first generation of wearable piezoelectric airflow transducer, which has proven effective in measuring human respiratory flow and metabolism in complex environments. Based on the unique piezoelectric properties of uniaxially stretched PLLA films, he invented the world's first wearable unimodal strain sensors and integrated them with artificial intelligence to demonstrate finger-air-writing applications. His research findings have been published in international SCI journals, including npj Flexible Electronics, ACS Sensors, Advanced Functional Materials, ACS Applied Materials & Interface, etc.

Topic of the Speech:

Mechanism of Electrocatalyzed MXene Nanoenzymes Wet-spun Fibrous Dressing for Promoting Diabetic Ulcer Healing

Dr. Jun Song

Shanghai University
China



Dr. Jun Song received his bachelor's degree in Textile Engineering from Soochow University in 2017, and his doctorate degree from the School of Materials, University of Manchester in 2021. He has won the National Excellent Self-funded Scholarship for international students. In 2022, he joined the MERTICINE team in the School of Life Sciences, Shanghai University, engaged in postdoctoral research, and was selected into the Shanghai Pujiang Talent Plan and the Municipal Education Commission's postdoctoral Faculty project. He is mainly interested in the medical application and biological effects of multi-scale textile fibers. As the first author or corresponding author, he has published more than ten papers in international journals, such as Advanced Functional Materials, ACS Applied Materials & Interfaces, Journal of Materials Science & Technology, International Journal of Biological Macromolecules, Materials & Design, Journal of Materials Science & Technology, International Journal of Biological Macromolecules.

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

The Mechanical Mechanism of Knitted Strain Sensor for Pulse Wave Monitor from Skin Surface

Dr. Zhongda Chen

Nanjing Medical University
China



Dr. Zhongda Chen is a Postdoctoral at School of Biomedical Engineering and Informatics, Nanjing Medical University, P.R. China. He received his M.Sc. and Ph.D. degree from the Department of Materials, The University of Manchester. Under the supervision of renowned textile expert Prof. Henry Yi Li, he worked on the biomedical applications of textile materials such as fibers and knitted fabrics, focusing on the design and manufacture of wound healing devices and fabric-based flexible mechanical sensors. In 2022, he joined Professor Benhui Hu's research group at Nanjing Medical University for his postdoctoral work, focusing on the mechanical sensing of knitted fabrics for cardiovascular disease detection. During his tenure, he was selected for the "2023 Jiangsu Province Excellent Postdoctoral Program". His research interests lie in fibrous functionalized materials for the development of biomedical devices, implantable electronics and sensors. His research findings have been published in international high-quality journals, including *Materials & Design*, *Materials Science and Engineering: C*, *ACS Omega*, *Advanced Functional Materials* and *ACS nano*.

Topic of the Speech:

The FBD platform for ESG and EPR legislation compliance

Ir. Tim Jun Li

Digital Clothing Limited
Manchester UK



Ir. Tim Jun Li, Graduated with distinction (cum laude) from TU Delft in MSc Architecture, Urbanism and Building Sciences, Tim Jun Li has excellent design thinking and 3D modelling and simulation skillsets. Tim Jun Li was deeply involved in the Textile Industry Chain Big Data Platform EU Horizon 2020 project and was responsible for designing the e-shopping API plug-in user interface for hand feel, skin feel and thermal wear comfort. His expertise covers 3D virtual simulations of clothing thermal and moisture performance, and has contributed to publications of several excellent scientific research results, articles and patents. He has worked closely with Textile Bioengineering Informatics Society (TBIS) to organize world class international symposiums, and in the founding and establishment of the International Digital Health and Intelligent Material Innovation Alliance (IDHIMIA), as well as the Fashion Big Data foundation (FBDf).

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

The Future of Transparency and Circularity

Chathura Sudharshan

Seamless Source

UK



Chathura Sudharshan is the visionary founder of Seamless Source. With a deep-rooted understanding of the global fashion industry, he boasts a wealth of experience spanning both the global south and north. Having worked across diverse countries such as the UK, Italy, Belgium, Bangladesh, India, and Sri Lanka, Chathura has cultivated an unparalleled perspective on the industry's complexities. With a proven track record in innovation and business development, he has successfully led teams within numerous international fashion companies, garnering accolades for his contributions to business and innovative processes. Chathura founded Seamless Source after recognizing the significant shortcomings of traditional fashion supply chains, which lack both transparency and circularity. Seamless Source addresses this by providing pre-built value chains or the technology to construct your own. This empowers fashion businesses to create transparent and circular product lines. Seamless Source technology is called PRM - Product Relationship Management Platform. That connects brands, suppliers, consumers and recyclers all in one place to take products on a transparent and circular journey. In other words, a CRM digitally manages each product's lifecycle.

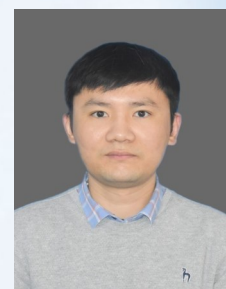
Topic of the Speech:

Innovation and Entrepreneurship Based on Digital Twin Textile Supply Chain Platform

Dr. Zhangchi Liu

Qingdao University

China



Dr. Zhangchi Liu, With a specialization in textile performance, digital textile industry chain, industry business 4.0 business model and big data technology platforms in his PHD at the University of Manchester, Zhangchi Liu played a vital role in the Textile Industry Chain Big Data Platform EU Horizon2020 project. He has extensive experience in communicating and coordinating large scale projects involving several international fashion apparel companies, lectured and received awards at international conferences and published high quality papers at international journals and patents.

Medal Lectures - Wednesday, August 21, 2024

Topic of the Speech:

Measuring Methods of Body Shape for Efficiently Manufacturing Individualized Garments

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 Fabrics & Production, 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.

Topic of the Speech:

Development And Performances Testing of Sitting Cushion with Comfort Zone Partition Based on Setting Poster Analysis

Dr. Liya Zhou

College of Fashion and Design
Donghua University
China



Dr. Liya Zhou has obtained her doctoral degree in Textile Engineering from Donghua University in 2007. She studied and worked as a research assistant at the Hong Kong Polytechnic University from 2003 to 2006. From 2007 to 2009, she worked as a senior technical consultant and technician and later served as a project manager in textile department of SGS, Shanghai. From 2009 to now, she has been served as a lecturer and associate professor Donghua University. Her research interest includes design and development of functional knitwear such as thermal and wet comfort; Subjective and objective evaluations and intelligent testing related to physiological comfort; textile quality control and testing; design and matching of knitted products; textile color matching and intelligent recommendation based on emotional intention.

Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Study on the Recycling of Various Textile Materials and Their Impact to the Textile Industry Decarbonization

Dr. Eric Wang

R&D and Innovation Director,
SGS Connectivity & Products, Global Softlines
China



Dr. Eric Wang completed a BSc at Peking University and holds a PhD from the University of Guelph in Canada with major in organic chemistry. He has more than 15 years of experience in the development and implementation of innovative sustainability and chemical management solutions, digital platform and technical projects in the global textile and footwear supply chain. Eric is familiar with major international regulations and standards including REACH, CPSIA, bluesign, Higg Index, GRS, carbon footprint, and ESG etc. Knowledgeable in testing standards such as GB, ISO and AATCC, Eric has provided consultancy services and conducted hundreds of seminars, workshops, and training sessions in more than ten countries globally. He holds an ISO 14001 certificate from the Institute of Environmental Management and Assessment (IEMA) and is a Certified Energy Manager (CEM) by the Association of Energy Engineers (AEE). He also serves as an off-campus graduate student supervisor at Donghua University in Shanghai.

Topic of the Speech:

Preparation and Characterization of Three Dimensional Nanofibrous Scaffold

Dr. Jiashen Li

The University of Manchester
UK



Dr. Jiashen Li is a Lecturer in Textile Science & Engineering in the Department of Materials. His research interests involve the science and technology underpinning processing-structure-property relationships in functional fibers and textiles; including nano fibres, bio-functional fibres, smart fibres and textiles, e-textile, and structural fibre-composites. With more than ten years' experience on fibre spinning, he has significantly expanded his studies of advanced functional polymer fibres and textiles. Dr. Jiashen Li obtained his PhD in Polymer Materials (Physics) from Tianjin University (China) in 2001. He then spent thirteen years conducting biomaterials and fibre spinning in The Hong Kong Polytechnic University (Hong Kong), before joining the University of Manchester in 2015.

Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Fiber Materials and Devices for Digital Healthcare

Dr. Zekun Liu

University of Oxford
UK



Dr. Zeku Liu receives his Ph.D. degree at Department of Materials, The University of Manchester in 2022. He is now working as a Research Associate at Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford. During the Ph.D. study, his research focused on functionalized fiber materials for developing wearable strain, pressure, and strain sensors, which are utilized for body area sensing networks with improved sensing reliability. His current research mainly refers to flexible and biocompatible soft robots for tissue engineering. He published several peer-reviewed journal papers in *Advanced Functional Materials*, *Nano Energy*, *Nano-Micro Letters*, *Bioactive Materials*, *Chemical Engineering Journal* and *ACS Applied Materials & Interfaces*, etc. His research interests include nanomaterials and functionalized materials for the development of advanced composites, functional clothes, biomedical devices, and flexible electronics such as sensors, batteries, solar cells, and generators.

Topic of the Speech:

Printed Flexible Electronics for Advanced MedTech

Dr. Hui Huang

Singapore Institute of Manufacturing Technology (SIMTech)
Agency for Science, Technology and Research (A*STAR)
Singapore Institute of Technology (SIT)
Singapore



Dr. Hui Huang is a Senior Scientist in Microfluidics and MedTech Devices Group at Singapore Institute of Manufacturing Technology (SIMTech), Agency for Science, Technology and Research (A*STAR), and a joint Assistant Professor in Electronics at Singapore Institute of Technology. Dr Huang obtained his PhD degree in Microelectronics from Xi'an Jiaotong University, China. Prior to joining SIMTech, Dr Huang was a Lee Kuan Yew Postdoctoral Fellow in the School of Electrical and Electronic Engineering at Nanyang Technological University, Singapore. He was the recipient of Singapore Millennium Foundation Scholar in 2008. He has extensive R&D experience in nanomaterials, functional coatings and flexible devices with particular emphasis with particular emphasis in printed electronics, energy efficient, energy conversion and storage.

Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Heat and Moisture Transfer of Multilayer Adult Incontinence Briefs in Computational Simulations and Objective Measurements

Dr. Yueping Guo

Novel Protective Textiles Limited
Hong Kong, China



Dr. Yueping Guo earned her Ph.D. degrees at Institute of Textiles and Clothing, The Hong Kong Polytechnic University. Then she consecutively joined The Hong Kong Polytechnic University and was a Fellow, Project Manager, Project Deputy Coordinator and Lecturer. She established Novel Protective Textiles Limited and is a Responsible Official of the company. She supervised M. Phil. and PhD students. She has authored and co-authored more than 100 journal publications, conference papers/presentations, technical reports, book chapters and patents. She has more than 10 awards on outstanding research papers, patent inventions and technology transfer. The inventions from the research projects have been successfully commercialized, including Nano-facemasks, High Performance Sportswear, Anti-Heat Stress Clothing for construction workers, and Summer Uniforms for cleansing workers, which won many international and regional invention/innovation awards. She served as an editor for Journal of Fiber Bioengineering and Informatics, and is the reviewers for CMAJ and Textile Research Journal etc.

Topic of the Speech:

High Performance Wearable TENG Utilizing Nanofiber Membrane for Energy-harvesting

Dr. Chunhong Zhu

Faculty of Textile Science and Technology
Shinshu University
Japan



Dr. Chunhong Zhu is an Associate Professor in the Institute for Fiber Engineering (IFES), Interdisciplinary Cluster for Cutting Edge Research (ICCER), as well as the Department of Advanced Textile and Kansei Engineering, Faculty of Textile Science and Technology, Shinshu University, Japan. She obtained her Master's degree from Soochow University, China majored in Textile Materials and Design in 2010. After that, she received her Ph.D. from Shinshu University in 2014. From 2014 to 2015, she worked as a R&D in a Japanese company and returned to Shinshu University as a faculty member in 2015. Her research interests include three-dimensional fabrics, functional and smart textiles.

Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Visualization of Polymer Fiber Microstructures by AIEgens

Professor Yanhua Cheng

Donghua University
China



Prof. Yanhua Cheng received her Ph.D. degree from the Department of Materials Science and Engineering at Donghua University in 2015, during which she was co-trained at Peking University (2009.02-2010.01) and University of California, Los Angeles (UCLA, 2011-2013). Her research interests mainly focused on AIE-based smart fibers and fibrous porous materials for thermal insulation. She has authored more than 50 publications. She received the second prize of National Technological Invention Award (2020), the Science and Technology Award of China Textile Industry Federation-the second prize of scientific and technological progress (2019), was shortlisted for the dual-use technological innovation achievements of the textile industry (2019), and Shanghai S&T 35U35 nomination award.

Topic of the Speech:

In-situ Crosslinking Reinforced Cellulose Aerogel Fibers for Thermal Insulation and Multifunctional Applications

Professor Ronghui Guo

College of Biomass Science and Engineering
Sichuan University
China



Prof. Ronghui Guo is a professor of College of Biomass Science and Engineering at Sichuan University. She is candidate for academic and technical leaders of Sichuan Province, and overseas talents of Sichuan University. She obtained PhD from Hong Kong Polytechnic University. She is a member of the steering committee on textile and clothing of the Ministry of Education, member of the council for dyeing and finishing of the Chinese Society of textile engineering, director of the council of Sichuan textile engineering society and member of technical expert committee of energy conservation and environmental protection industry of Sichuan energy conservation association. She mostly focuses on researches of functional and smart fiber materials, flexible wearable sensor and textile recycling and utilization etc. In recent years, her researches have been supported by National Natural Science Foundation of China, Sichuan Science and Technology Program, Chengdu Science and Technology Bureau, Ningbo Science and Technology Bureau, etc. She has over 150 scientific publications including over 100 SCI papers and she owns more than 10 invention patents.

Medal Lectures - Thursday, August 22, 2024

Topic of the Speech:

Enhancing Thermal Management in Protective Textiles Using Hydrated Salt as Phase Change Materials

Dr. Danmei Sun

School of Textiles and Design
Heriot-Watt University
UK



Dr. Danmei Sun is an Associate Professor in Advanced Textile Materials & Engineering at the School of Textiles and Design, Heriot-Watt University. She comes from a textile industry background as a textile engineer for over 10 years before becoming an academic in 2018. Dr Sun's research interests lie in the areas of functional fibres/filaments for protective textile and clothing systems, eco-friendly printing and dyeing, understanding material properties through Finite Element Analysis, etc. Her research activities are supported by various research projects that are funded by government funding bodies such as UK Dstl/MoD, Oil & Gas Innovation Centre, Scottish Funding Council, EPSRC, and AHRC, and company partners such as Harris Tweed, Iron and Ocean Ltd., etc.