

ISIE 2019 Industry Forum

Speakers biographies



Mahdi Ramezani, Director of Core Research Development, Motion Metrics Inc., Canada

Mahdi Ramezani has been with Motion Metrics since 2014 and is the Director of Core Research and Development. He holds a Ph.D. in Electrical and Computer Engineering from the University of British Columbia in Canada, as well as an M.Sc. and B.Sc. in Electrical Engineering from the Sharif University of Technology in Iran.

Talk title: Automating Routine Operational Decisions: Using Sensors, AI and Connectivity

Abstract: What does the mine of the future look like? We envision a fully autonomous operation supervised from a remote operating centre. However, full automation will only be possible once machines can replicate human judgement. Over the past few decades, conventional and AI-based machine vision systems have gradually phased out traditional methods of equipment control and monitoring. However, these systems still require significant human intervention. As artificial intelligence improves, we can remove humans from the loop and place them in the supervisory roles imagined at the mine of the future.



ISIE 2019 Industry Forum

Speakers biographies



Shalaleh Rismani, Director of Applied Design Research and Training, Open Roboethics Institute, Vancouver, Canada

Shalaleh Rismani has been with Open Roboethics Institute since April 2017. She worked in Generation R Consulting as the Chief Innovation Officer/System Analyst from April 2017 to April 2019. From September 2013 to March 2017, she worked as a Design Researcher with Collaborative Advanced Robotics and Intelligent Systems (CARIS) Lab in Vancouver, Canada.

Talk title: How can we design ethical AI and robotic systems? Creating A Design Roadmap

Abstract: The ethical concerns around how AI and robotics systems are being development and implemented in our world have been discussed more within industry, academia and the public. In this presentation, you will learn about what are some of these ethical challenges and how we can address them in a practical way. The talk will cover the cutting-edge work that Open Roboethics Institute has been doing to develop practical solutions to ethical risks posed by AI and robotic systems. These solutions are often multi-faceted and have to be addressed in technology, people and values level.



ISIE 2019 Industry Forum

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Laura Edell, Sr. Data Scientist, Microsoft, United States

Laura Edell is a senior Data Scientist & Cloud Solutions Architect at Microsoft. She received her bachelor's degree from the University of Florida and earned a Bachelor of Theoretical and Mathematical Physics from the University of Central Florida. She is a recognized expert in Machine Learning and the nominee for Microsoft BI Pioneer of the Year in 2007.

Talk title: Did You Hear That...? Augmenting Custom Vision AI with Sound

Abstract: How Custom Vision + Noise Classification was Used to Augment Automated Predictive Maintenance of HVAC Systems - Session will provide a real world, scenario based exploration of approach, findings and solution in the manufacturing space (with code repository shared for others to try within their own verticals/industries).



ISIE 2019 Industry Forum

Speakers biographies



Stamatis Karnouskos, SAP, Germany

Stamatis Karnouskos is with SAP in Germany, dealing with emerging industrial technologies and enterprise systems. He investigates the added value of integrating networked embedded devices and enterprise infrastructures. For more than 20 years Stamatis leads efforts in several European Commission and industry-funded projects related to industrial automation, smart grids, Internet/cloud-based services and architectures, software agents, security, and mobility.

Talk title: Implications of 5G for Industrial IoT

Abstract: The advances on 5G promise a new generation of applications and services that will empower the 4th Industrial Revolutions. Connectivity is considered as the key enabler for a new IoT era empowered by intelligent autonomous systems. In Europe, several cutting-edge research and innovation projects are investigating the new challenges and opportunities such an infrastructure brings.



ISIE 2019 Industry Forum

Speakers biographies



Victor Huang, Partner, Sage Technological Resources

Victor Huang is a senior level executive seasoned in high technology industrial management, having served as VP Engineering in 5 separate startups in Silicon Valley, as Deputy Director of the Institute of Microelectronics (IME) in Singapore's highly successful high technology industry, and Technical Manager at AT&T Bell Laboratories. His experience spans the telecommunications industry and electronic mobility, wireless, and consumer products, and VLSI microprocessor chip design. He is presently a Partner in Sage Technology Resources, a technology and business consulting services firm serving investment, early stage, growth stage and Global 1000 companies, where he specializes in IT-Automotive sector - Electric Vehicles and infrastructure industry (EV), and in connected and autonomous vehicles. He is also on the Board of Directors on present and past startup companies in Silicon Valley.

Dr. Huang is an IEEE Life Senior member, Life AdCom member of the IEEE Industrial Electronics Society (IES), IES Technical Committee Chair of Standards, IES representative to the IEEE Standards Board, Secretary and Member of the IEEE Technical Engineering Management Society (TEMS), Member of the IEEE Communications Society, and the TEMS representative to the IEEE Future Directions Initiative on Symbiotic Autonomous Systems. He is a recipient of the IEEE Standards Association (IEEE-SA) Standards Medallion for exceptional contributions to standards development. He has authored/co-authored over 40 IEEE and professional publications, and a holder of 4 international patents. Dr. Huang holds an MSc and Ph.D. in Electrical Engineering from the University of Virginia, and a BS (EE) from the Virginia Military Institute.

Talk title: Snapshot of 5G Standards Landscape and Multi-Access Computing (MEC)



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Kim Fung Tsang, Founding Chair, Connected City Alliance; Faculty of City University of Hong Kong

Kim Fung Tsang is the Founding Chairman of Connected Cities Alliance. KF is also a Faculty in the City University of Hong Kong. He has been dedicated to Internet of Things (IoT) development in particular to smart lamp pole, 5G harmonization and modelling, IoT LPWAN (LoRa, SigFox and NB IoT) development and applications. In 2016, KF was awarded the IoT Heros Award by GS1 IoT Council (nominated by Cisco). Currently, KF contributes to key IoT standards and IoT performance evaluation, and is advising the Hong Kong government and a provincial government in the deployment of IoT infrastructure.

KF is the Chairman of IEEE Standard P2668 "IoT Maturity Index"; Chairman of LP Wan Work Group for IEEE P1451.5 smart sensors; a member of the IEEE1932.1 standard for License/Unlicensed Spectrum Interoperability in Wireless Mobile Networks Working Group; Membership Champion of IEEE Industrial Electronics Society; Associate Editor of IEEE Transactions on Industrial Electronics; Associate Editor of IEEE Transactions on Industrial informatics; Associate Editor of IEEE Industrial Electronics Magazine; Associate Editor of IEEE ITeN.

Talk title: 5G and IoT Challenges and Use Cases

Abstract: The large number of deployed Internet-of-things (IoT) devices will enhance the quality-of-life in various disciplines including industrial environments, transportation, healthcare, environment, smart grids,etc. The ubiquitous connectivity between the things facilitates data flow which are essential for establishing smart operations and thus providing efficiency and reliability. This presentation will discuss the road map and general challenges in IoT rollouts. Attention is drawn to the use of IoT for industrial or critical grade services. Challenges in particular applications, say 5G and NB IoT development in Hong Kong, will also be briefed. The use of 5G, NB IoT, LoRa etc. for numerous use cases in Hong Kong and Greater Bay Area China will be discussed.