

# Systematic Innovation



Industry, Business & Commerce  
Research, Engineering, Management  
Education: Schools, Training  
Government, Policies

**Wed. 23<sup>rd</sup> January  
2019, Nottingham**

Innovation is universally regarded as a key route to prosperity and societal development. Businesses and individuals spend considerable time, effort and money to develop new innovative products, services or solutions to maintain and improve their prospects. Although organisational innovators are relatively more successful in achieving their objectives, the success rate for turning new ideas into innovative solutions is generally considered to be lower than expectations. Experts have been pursuing different routes to develop systematic approaches to simplify and increase the success rates of turning ideas into innovation. This seminar is an opportunity to share and discuss different perspectives, ideas, opinion, expertise and experience by innovation professionals from academia / research, industry / commerce, education and the government. It is anticipated that such exchanges in this forum would lead to the development of a comprehensive Systematic Innovation approach that can be adopted by all interested in innovation. Furthermore, development of effective systematic approaches could lead to higher rates of success for practicing innovators and promote innovation by attracting new innovators through development of effective training programs. This seminar is the inaugural meeting of the Systemic Innovation Special interest group (SISIG) of the IEEE UK & Ireland and is jointly sponsored by the Nottingham Business School of the Nottingham Trent University.

## Speakers

- **Prof. B. Yazdani**, Dean, Nottingham Business School
- **Prof. A .G. Hessami**, Vega Systems & chair, IEEE UK&I Systems Council Chapter
- **Prof. M.J. Henshaw**, Loughborough University, Director; MSc Advanced Systems Engineering
- **Dr. Ben Watson**, 3M Corp.
- **Dr. R. Ghaffari**
- **Dr. D. Kaur**, Head of STEM, Loughborough Grammar School
- **Mr K. Cilliers**, Editor, TRIZ Journal
- **Dr. F. Fassihi**, GEP TEC Ltd. & Chair of IEEE UK&I SISIG.

## Venue:

Nottingham Business School, Burton Street, Nottingham, NG1 4BU.

For further information and registration to attend:

<https://www.eventbrite.com/e/systematic-innovation-seminar-tickets-52933908746>

# Programme

- 11:30 ; Registration
- 12:00 ; “Introduction and Welcome”; Prof. B. Yazdani
- 12:10 ; “Evolution of human problem solving from hunter gatherers to modern day innovation”, Dr. R. Ghaffari
- 12:50 ; “Innovation and Ethics”, Prof. A G. Hessami
- 13:30 ; “Innovation and its role in education and potential impact on students’ future”, Dr. D. Kaur
- 14:10 ; Break & Refreshments
- 14:40 ; “The role of Systems Engineering in Innovation”, Prof. M. J. Henshaw
- 15:10 ; “Innovation management systems and the enabling conditions for serial innovation success”, Dr. B. Watson
- 15:50 ; "Systematic Innovation, complex systems & capability maturity: not getting so far ahead of the parade no-one knows you're in the parade anymore“, Mr. K. Cilliers,
- 16:30 ; “Interdisciplinary vision of Systemic Innovation, its application and the potential role of the IEEE SISIG in ‘democratising’ innovation”, Dr. F. Fassihi
- 17:10 ; Discussions
- 18:00 ; Close

## Venue

**Nottingham Business School,  
The Nottingham Trent University,  
Burton Street, Nottingham,  
NG1 4BU.**



## Speakers



**Prof. Baback Yazdani** is Professor of Product Development and Dean of the Nottingham Business School. With an extensive senior international business and academic leadership experience, he is a strong advocate and driver in bringing business and higher education together for mutual benefit. He plays an active role in both academia and industry bodies. He is a board Member of European Foundation for Management Development (EFDM) and Member of the Executive Board of UK Association of Business Schools (ABS). Baback is an internationally renowned expert in the Automotive Industry, Lean Management and Product Design and Development, whose expertise is often sought by CEOs of major industries.



**Professor Ali Hessami** is Director of R&D and Innovation at Vega Systems. He is an expert in systems assurance and safety, security and sustainability, and has a background in design and development of advanced control systems for business and safety critical industrial applications. He represents the UK on CENELEC and IEC safety systems, hardware and software standards committees and is a group leader for a pan European Cyber Security Standard. He is also the Technical Editor for the IEEE P7000 process standards on addressing ethical concerns during system design.



**Professor Michael Henshaw**, leads the Engineering Systems of Systems research group at Loughborough university and is programme director of the Systems Engineering MSc. He leads the Loughborough University research challenge in Secure and Resilient Societies, which integrates technical, societal, and humanities disciplines to create solutions to natural and manmade threats to society. He is a co-chair of the IEEE SMC Society Technical Committee on Systems of Systems and member of RAeS, INCOSE, IEHF and a member of the NATO Technical panel in Systems Concepts and Integration. Much of his work concerns the integration of complex networked systems with contributions in Systems of Systems (SoS) and Cyber-Physical Systems (CPS) research.



**Dr. Daljit Kaur** is the head of STEM & innovation at the Loughborough Grammar School. Her Phd is in computing and works within the Loughborough Schools Foundation to help deliver and co-ordinate STEM and Innovation across the curriculum and to help nurture innovation at the school. She has had much success with her students to date including winning the UK Young Engineers of the Year Award and winning the “Teentech” awards annually since 2013.



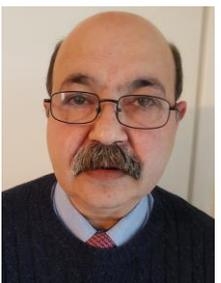
**Dr. Ben Watson** is leading 3M’s international interdisciplinary team to anticipate and shape the future. He has more than 20 years of global design experience and leadership in building and managing multi-disciplinary creative teams, to drive innovation. Ben’s PhD is in human factors and design from Loughborough University, addressing technology transfer concerns from ideation to innovation. He is on the Advisory Board of the Materials and Design Exchange, Trustee and Councillor for the Institution of Engineering Designers, international expert on Innovation Management Systems with the International Standards Organisation (ISO) and a fellow of the Institution of Innovation and Knowledge Exchange.



**Mr. Kobus Cilliers** is a globally renowned inventor whose innovations have been developed by companies across the globe including NASA, TATA, Titan, JLR and the NHS. A winner of internationally acclaimed awards, he is in demand as a mentor to leaders in global organisations. As editor of the TRIZ Journal, he is propagating progress within innovation and is keen to educate the world about the emancipatory results of innovation. To this end, he has developed and launched the world’s first Masters degree in Structured Innovation.



**Dr. Reza Ghaffari** is a systems expert and data scientist. He has received his PhD in Intelligent Systems from the University of Warwick. He has over a decade of experience in software engineering and system design. He is working for a major international consultancy and technology development corporation. His expertise and focus is delivering value to customers through optimised system architecture, data science and innovation. His paper relates to his personal research and special interest on minimalism and human behaviour.



**Dr. Farhad Fassihi** is the managing GEP TEC Ltd., a specialist ICT company. He is responsible for innovation and new technology developments and has initiated innovative solutions. His innovations have received recognition in the form of awards from national and International bodies. Farhad has developed the “Innovactive” methodology, a systematic innovation approach and European support to develop an online innovation incubation and development tool. He is the chair of the IEEE UK & Irelands’ Systematic Innovation Special Interest Group (SISIG)