



3rd International Workshop on Functional Reverse Engineering of Machine Tools (WRE 2021)

Program

December 11, 2021

Hybrid Inauguration Ceremony

Activities	Schedule (Pakistan Standard Time)	Meeting Link & Venue
Registration of on-campus speakers, session chairs and guests	8:00–8:45 AM	Venue: Seminar Hall, The Catalyst Meeting link: https://events.zoom.us/j/910111111111
Mic and camera check for online participants	8:00–8:45 AM	
Guests to be seated at the Venue	8:55 AM	
Recitation from the Holy Qur'an	09:00 AM	
National Anthem	09:05 AM	
Welcome Address by General Co-Chair, Professor Dr. Wasim Ahmad Khan, Pro-Rector (Academic), GIK Institute, Pakistan.	09:10 AM	
Keynote Talk 1: 'Investigation of Hybrid Structures based on Super Elastic Shape Memory Alloys and 3D Printed Lattice Structures under Impact Loading' by Dr Muhammad Abid, Director, COMSATS University, Pakistan.	09:20 AM	
Address by Chair IEEE Islamabad Section, Dr. Uzair Khan	09:35 AM	
Address by President IMechE (Pakistan Group), Mr. Hassan G. Ansari	09:45 AM	
Address by Chair WRE-2021, Prof. Dr. Fazal Ahmed Khalid (SI), Rector GIK Institute, Pakistan.	09:55 AM	



Parallel Technical Session 2: Robotics in Manufacturing Industry

Session Chairs: Dr. Khalid Rahman, GIK Institute, Pakistan, and Dr. Abid Imran, GIK Institute, Pakistan

Chapter/Invited Talk Title	Author/Speaker & Affiliation	Schedule (Pakistan Standard Time)	Meeting Link & Venue
Invited Talk 2: 'Visual object detection'	Dr Ahmar Rashid, GIK Institute, Pakistan	10:15 AM to 10:35 AM	Venue: Hall 2, Brabers Building Meeting link: https://events.zoom.us/j/910123456789
Invited Talk 3: Application of robot in composite manufacturing	Prof Xiaoping Wang, Nanjing University of Aeronautics and Astronautics, China	10:35 AM to 10:55 AM	
Invited Talk 4: Design and scheduling of cellular manufacturing system using artificial intelligence	Dr. Adnan Tariq, University of Wah, Pakistan	10:55 AM to 11:15 AM	
Collaborative robot with collision avoidance system	Dr Abid Imran, GIK Institute, Pakistan	11:15 AM to 11:35 AM	
Milling path planning of glasses lens edge based on dynamic Gaussian smoothing	Hao Liu, Nanjing University of Aeronautics and Astronautics, China	11:35 AM to 11:55 AM	
MATLAB simulation of various sliding mode control techniques for practical applications	Dr. Ali Nasir, University of Central Punjab, Pakistan	11:55 AM to 12:15 PM	



Lunch & Prayer Break (12:00 PM to 2:00 PM)

Parallel Technical Session 3: System Engineering Design for Functional Reverse Engineering

Session Chairs: Professor Dr. Tanveer Hussain, MUET, Pakistan and Professor Dr. Ghulam Hussain, GIK Institute, Pakistan

Chapter/Invited Talk Title	Author/Speaker & Affiliation	Schedule (Pakistan Standard Time)	Meeting Link & Venue
Invited Talk 5: 'Quality 4.0 and system engineering: current practices and future trends'	Professor Dr. M. Tufail NEDUET, Pakistan.	2:00 PM to 2:20 PM	Venue: Hall 1, Brabers Building Meeting link: https://events.zoom.us/j/910123456789
Promoting enterprises of functional reverse engineering through design thinking: Engineers and marketers perspective	Dr. Cedric Aimal Edwin, CECOS University, Pakistan	2:20 PM to 2:40 PM	
Design and fabrication of textile spinning machine taking sustainability into account	M. Salar Khan, GIK Institute, Pakistan	2:40 PM to 3:00 PM	
Process design for hot forging via finite element analysis considering reverse engineering	Dr. Volkan Esat, Middle East Technical University, Northern Cyprus, Turkey	3:00 PM to 3:20 PM	



Parallel Technical Session 4: Additive Manufacturing

Session Chairs: Professor Duc T. Pham (Honorary Chair WRE2021), University of Birmingham, UK, and Professor Dr. Muhammad Ilyas, GIK Institute, Pakistan

Chapter/Invited Talk Title	Author/Speaker & Affiliation	Schedule (Pakistan Standard Time)	Meeting Link & Venue
Invited Talk 6: 'Mitigating cyber risks in a digital world'	Dr. Lubna Luxmi Dhirani, University of Limerick, Ireland	2:00 PM to 2:20 PM	Venue: Hall 2, Brabers Building Meeting link: https://events.zoom.us/j/8nheqK7xuYwo5_KdG0a_c2DRaFZhBZ42MF4zka60NGdNIvyGS GGDV8BncAH4bRzmiE
Everything you need to know about Intelligent manufacturing: Industry 4.0	Engr. Ali Akbar Shah, MUET, Pakistan	2:20 PM to 2:40 PM	
An introduction to additive manufacturing (AM) of metals and its trends in wire-arc additive manufacturing WAAM simulations	Rameez Israr, Cottbus. Brandenburg University of Technology, Germany	2:40 PM to 3:00 PM	
Additive manufacturing based rapid tooling	Syed Waqar Ahmed, University of Technology Petronas, Malaysia	3:00 PM to 3:20 PM	



Hybrid Closing Ceremony

Closing Session	Schedule (Pakistan Standard Time)	Meeting Link & Venue
Keynote Talk 3: ‘Remanufacturing in the age of the fourth industrial revolution’; Professor Duc T Pham, (Honorary Chair WRE2021), University of Birmingham, UK	3:30 PM to 3:50 PM	Venue: Seminar Hall, The Catalyst Meeting link: https://events.zoom.us/j/91012345678
Keynote Talk 4: ‘Deformation error compensation of industrial robots in single point incremental forming’; Dr. Lemopi Isidore Besong; Brandenburg University of Technology, Germany.	3:50 PM to 4:10 PM	
Closing Address by Professor Dr. Fazal Ahmed Khalid (SI), General Chair, Rector, GIK Institute, Pakistan	4:10 PM to 4:20 PM	
Closing Remarks by Chief Guest	4:20 PM to 4:30 PM	
Presentation of Best Chapter Awards Dr. Ghulam Abbas, GIK Institute, Pakistan	4:30 PM	
Vote of Thanks by Dr. Ghulam Abbas, GIK Institute, Pakistan	4:30 PM	