

MARCH 2022  
**28-30**

*2<sup>nd</sup> Edition of*

INTERNATIONAL CONFERENCE ON

# **MATERIALS SCIENCE AND ENGINEERING**

**VIRTUAL EVENT**

**FINAL  
PROGRAM**



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# DAY 01

## MONDAY, MARCH 28

**Moderator** - Jennifer Gubitosa, University of Bari "Aldo Moro", Italy

### KEYNOTE PRESENTATIONS

GMT Timings	Local Timings	
09:30 - 10:00		AV Check
10:00 - 10:10		Introduction
10:10-10:50	10:10-10:50	<b>Bala Vaidhyanathan, Loughborough University, United Kingdom</b> Title: Additive manufacturing of advanced ceramics: The art of the possible
10:50-11:30	11:50-12:30	<b>Jean Ebothe, Université de Reims Champagne Ardenne, France</b> Title: Geometrical impact on magnetic properties of mesoscopic scale thick nickel thin films

### ORAL PRESENTATIONS

11:30-11:50	19:30-19:50	<b>Li Hui, Northeastern University, China</b> Title: Vibration and damping study of multifunctional grille composite sandwich plates with an IMAS design approach
11:50-12:10	19:50 - 20:10	<b>Jake Airey, Rolls-Royce, Singapore</b> Title: The tribological performance of gas turbine lubricants
12:10 - 12:30	19:10 - 19:30	<b>Siwat Linjee, Chiangmai University, Thailand</b> Title: Development of ultrafine-grained Al-Zn-In alloy for high-performance Al-air battery anode
12:30 - 12:50	13:30 - 13:50	<b>Thorsten Pretsch, Fraunhofer IAP, Germany</b> Title: Recognizing the potential of 4d printing
12:50 - 13:20	14:50-15:20	<b>Leelakrishna, University of Johannesburg, South Africa</b> Title: Recent development in NaCa(AG):Sm <sup>3+</sup> (where AG = BO <sub>3</sub> <sup>-3</sup> , PO <sub>4</sub> <sup>-3</sup> and SO <sub>4</sub> <sup>-2</sup> ) nanophosphors-applications for solid state lightning

### KEYNOTE PRESENTATIONS

13:20 - 14:00	06:20 - 07:00	<b>Ephraim Suhir, State University Portland, United States</b> Title: Burn-in testing (BIT) in electronics manufacturing: To BIT or Not to BIT, That's the question
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## ORAL PRESENTATIONS

14:00 - 14:20	19:30 - 19:50	<b>Shivani Dhall, DAV College, India</b> Title: Role of candle carbon soot as gas sensing material
14:20 - 14:40	19:50 - 20:10	<b>Rupali Nagar, Symbiosis Institute of Technology, India</b> Title: Sol-derived three-dimensional growth of tin oxide fractals
14:40 - 15:00	20:10 - 20:30	<b>Shwetha Govinda Bhat, Indian Institute of Science, India</b> Title: Oxide substrate termination and 2D growth of perovskite magnetic oxide ultra-thin films
15:00 - 15:20	20:30 - 20:50	<b>Ramavatar Meena, CSIR-Central Salt and Marine Chemicals Research Institute, India</b> Title: Seaweed polymer containing functional materials to protect environment
15:20 - 15:40	20:50 - 21:10	<b>Soumendu Sinha, CSIR - Central Electronics Engineering Research Institute (CEERI), India</b> Title: Development of sensing film materials using reactive sputtering process for FET-based pH Sensors
15:40 - 16:00	11:40 - 12:00	<b>Bhaswati Choudhury, SurfPlasma, Inc, United States</b> Title: Surface dielectric barrier discharge (DBD) plasma decontamination
16:00 - 16:20	09:00 - 09:20	<b>Ephraim Suhir, State University Portland, United States</b> Title: Probabilistic design for reliability of the electronic and photonic materials, devices, packages and systems

# DAY 02

## TUESDAY, MARCH 29

**Moderator** - Nandini Bhattacharya, The Energy and Resources institute, India

### KEYNOTE PRESENTATIONS

GMT Timings	Local Timings	
09:30 - 10:00		<b>AV Check</b>
		<b>Kamran Nikbin, Imperial College, United Kingdom</b>
10:00 - 10:40	10:00 - 10:40	Title: An integrated multiscale structural integrity approach to predicting damage and failure in advanced steels under fatigue/creep/oxidation
		<b>Zakaria Bomerzoug, University of Biskra, Algeria</b>
10:40 - 11:20	11:40 - 12:20	Title: Continuous casting of copper wire

### POSTER PRESENTATIONS

		<b>Foo Ngiap Yew Jared, Rolls-royce Singapore Pte Ltd, Singapore</b>
11:20 - 11:30	19:20 - 19:30	Title: A case study of austenitic stainless steel air tube fracture from an aircraft gas turbine engine
		<b>Changliang Yao, Korea Maritime and Ocean University, Republic of Korea</b>
11:30 - 11:40	20:30 - 20:40	Title: Study on mechanical properties of copper alloy (CuNi2SiCr) layered on nickel aluminum bronze (NAB) by using direct energy deposition

### ORAL PRESENTATIONS

		<b>Chi Ho Wong, The Hong Kong University of Science and Technology, Hong Kong</b>
11:40 - 12:00	19:40 - 20:00	Title: Enormous enhancement of p-orbital magnetism in the lightly doped carbon chains
		<b>Sanjib Bhattacharya, University of North Bengal, India</b>
12:00 - 12:20	17:30 - 17:50	Title: Journey from ion transport to polaron hopping: glassy electrolytes to chalcogenides
		<b>S S Lokesh Vendra, Indian Institute of Technology, India</b>
12:20 - 12:40	17:50 - 18:10	Title: Transition metal modified SiOC as a next generation dielectric material for energy storage applications
		<b>Seongwoo Woo, Ethiopian Technical University, Ethiopia</b>
12:40 - 13:00	15:40 - 16:00	Title: Improving the reliability design of mechanical systems such as refrigerator
		<b>Lydia Bondareva, Ehrisman's Federal Scientific Centre of Hygiene, Russian Federation</b>
13:00 - 13:20	16:00 - 16:20	Title: Nanomaterials in nuclear technologies and radioecology
		<b>Selcuk Poyraz, Adiyaman University, Turkey</b>
13:20 - 13:40	16:20 - 16:40	Title: A novel combined approach to simultaneous nanostructured conducting polymer carbonization and carbon nanotube/metal oxide nanowire growth

13:40 - 14:00	16:40 - 17:00	<b>Osman Adiguzel, Firat University, Turkey</b> Title: Shape reversibility and displacive transformations in shape memory alloys
14:00 - 14:20	15:00 - 15:20	<b>EL Moudni EL Alami Souad, Université Mohamed 1er, Morocco</b> Title: Industrial by-products of granular character: Management issues and valorization approach in Civil Engineering
14:20 - 14:40	15:20 - 15:40	<b>Chaimaa Diouri Ayad, Cedoc EHTP/ office chérifien des phosphates du Maroc, Morocco</b> Title: Moroccan phosphogypsum valorisation in road application
14:40 - 15:00	15:40 - 16:00	<b>Vito Rizzi, University of Bari "Aldo Moro", Italy</b> Title: Agricultural wastes as environmentally friendly materials to remove pollutants from water
15:00 - 15:20	16:00 - 16:20	<b>Jennifer Gubitosa, University of Bari "Aldo Moro", Italy</b> Title: A food waste-based polyphenolic extract for synthesizing gold nanoparticles as powerful multifunctional platforms in cosmetics and biomedicine
15:20 - 15:40	11:20 - 11:40	<b>Thomas Webster, Interstellar Therapeutics, United States</b> Title: Commercializing university-based research: Self-assembled nanomaterials for fighting COVID-19, inhibiting infection, killing cancer, and regenerating tissues
15:40 - 16:00	09:40 - 10:00	<b>Ricardo Acosta Ortiz, Centro de Investigación en Química Aplicada, Mexico</b> Title: Synthesis and evaluation of the performance of a new curing agent for the photopolymerization of biobased epoxy resins
16:00 - 16:20	17:00 - 17:20	<b>Mustapha Hidouri, Gabes University, Tunisia</b> Title: Multiple ion-substituted hydroxyfluorapatites bioceramics

# DAY 03

## WEDNESDAY, MARCH 30

**Moderator** - Shwetha Govinda Bhat, Indian Institute of Science, India

### KEYNOTE PRESENTATIONS

GMT Timings	Local Timings	
09:30 - 10:00		<b>AV Check</b>
		<b>Vasily Lutsyk, Siberian Branch of the Russian Academy of Sciences, Russian Federation</b>
10:00 - 10:40	17:00 - 17:40	Title: 3D computer models of isobaric phase diagrams for ternary systems to verify and validate thermodynamic calculation and experimental investigation: Ag-Bi(Sb)-Sn, Al(Bi)-Sn-Zn, Au-Ge-Sn

### ORAL PRESENTATIONS

10:40 - 11:00	18:40 - 19:20	<b>Dhanesh G. Mohan, Shandong University, China</b>
		Title: High entropy alloys for additive manufacturing
		<b>Mizuki Mukai, Doshisha University, Japan</b>
11:00 - 11:20	20:00 - 20:20	Title: Study on impact and fatigue properties of butt and single lap joint adherend by epoxy resin enhanced by dispersed core shell rubber particles
		<b>Sunanda Dhar, University of Calcutta, India</b>
11:20 - 11:40	16:50 - 17:10	Title: Growth of dilute III-V-N and III-V-Bi semiconductors by liquid phase epitaxy
		<b>Nandini Bhattacharya, The Energy and Resources institute, India</b>
11:40 - 12:00	17:10 - 17:30	Title: Green synthesized graphene for delivery of plant growth regulators into plants
		<b>Prasanta Chowdhury, National aerospace Laboratories, India</b>
12:00 - 12:20	17:30 - 17:50	Title: Development of current sensors using giant magnetoresistance effect in magnetic multilayers
		<b>Atteshamuddin S. Sayyad, Sanjivani College of Engineering Kopergaon, India</b>
12:20 - 12:40	17:50 - 18:10	Title: Frequency analysis of functionally graded material circular beams
		<b>Praveen Kumar Saxena, Tech Next Lab Pvt Ltd, India</b>
12:40 - 13:00	18:10 - 18:30	Title: Material growth, characterization of group IV, III-V & II-VI semiconductors and its use for various device applications
		<b>Arun Kumar Singh, Guru Ghasidas Vishwavidyalaya, India</b>
13:00 - 13:20	18:30 - 18:50	Title: Impact of molecular ordering and alignment of conjugated polymer on charge transport
		<b>Sanjay B. Patil, Shriman Sureshdada Jain College of Pharmacy, India</b>
13:20 - 13:40	18:50 - 19:10	Title: Development and in vitro evaluation of chitosan microspheres of sertraline hydrochloride for nasal delivery

13:40 - 14:00	19:10 - 19:30	<b>Swamini Chopra, Maharashtra Institute of Technology, India</b> Title: Cryogenic treatment: evolution for polymeric materials
14:00 - 14:20	19:30 - 19:50	<b>Minakshi Sharma, Maharshi Dayanand University, India</b> Title: Fabrication of an electrochemical cytochrome c biosensor based on graphene oxide nanoparticles
14:20 - 14:40	19:50 - 20:10	<b>Chebrolu Pulla Rao, IIT Tirupati, India</b> Title: Protein - Inorganic Sustainable Hybrid Nano-Materials in Water Purification
14:40 - 15:00	15:40 - 16:00	<b>Alicja Tymoszek, Bydgoszcz University of Technology and Science, Poland</b> Title: Nanomaterials in improving micropropagation and breeding techniques of horticultural plants
15:00 - 15:20	15:00 - 15:20	<b>Diogo M.F. Santos, CeFEMA, IST-ULisboa, Portugal</b> Title: Towards effective green hydrogen production by enhancing oxygen electrode kinetics with transition metals (Ni, Fe, Cu) alloyed to platinum supported on graphene nanoplatelets
15:20 - 15:40	16:20 - 16:40	<b>Johan Debayle, MINES Saint-Etienne, France</b> Title: Stochastic geometrical modeling of SOC electrode microstructures
15:40 - 16:00	10:40 - 11:00	<b>Leonardo Prieto Abello, Instituto Distrital de Ciencia, Biotecnología e Innovación en Salud, Colombia</b> Title: Evaluation of polycaprolactone and glycine electrospun biocomposite as scaffold for tissue construct skin
16:00 - 16:20	21:00 - 21:20	<b>Najam Ul Hassan, University of Education, Pakistan</b> Title: Tunable martensitic transformation and magnetic properties of Sm doped NiMnSn ferromagnetic shape memory alloys

## THANKING NOTE AND CLOSING CEREMONY

## **UPCOMING CONFERENCES**

### **3<sup>rd</sup> Edition of International Conference on Materials Science and Engineering**

September 21-22, 2022 | Paris, France

<https://materials.magnusconferences.com>

### **4<sup>th</sup> Edition of International Conference on Materials Science and Engineering**

March 13-14, 2023 | Singapore

<https://magnusconferences.com/materials-science/>

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