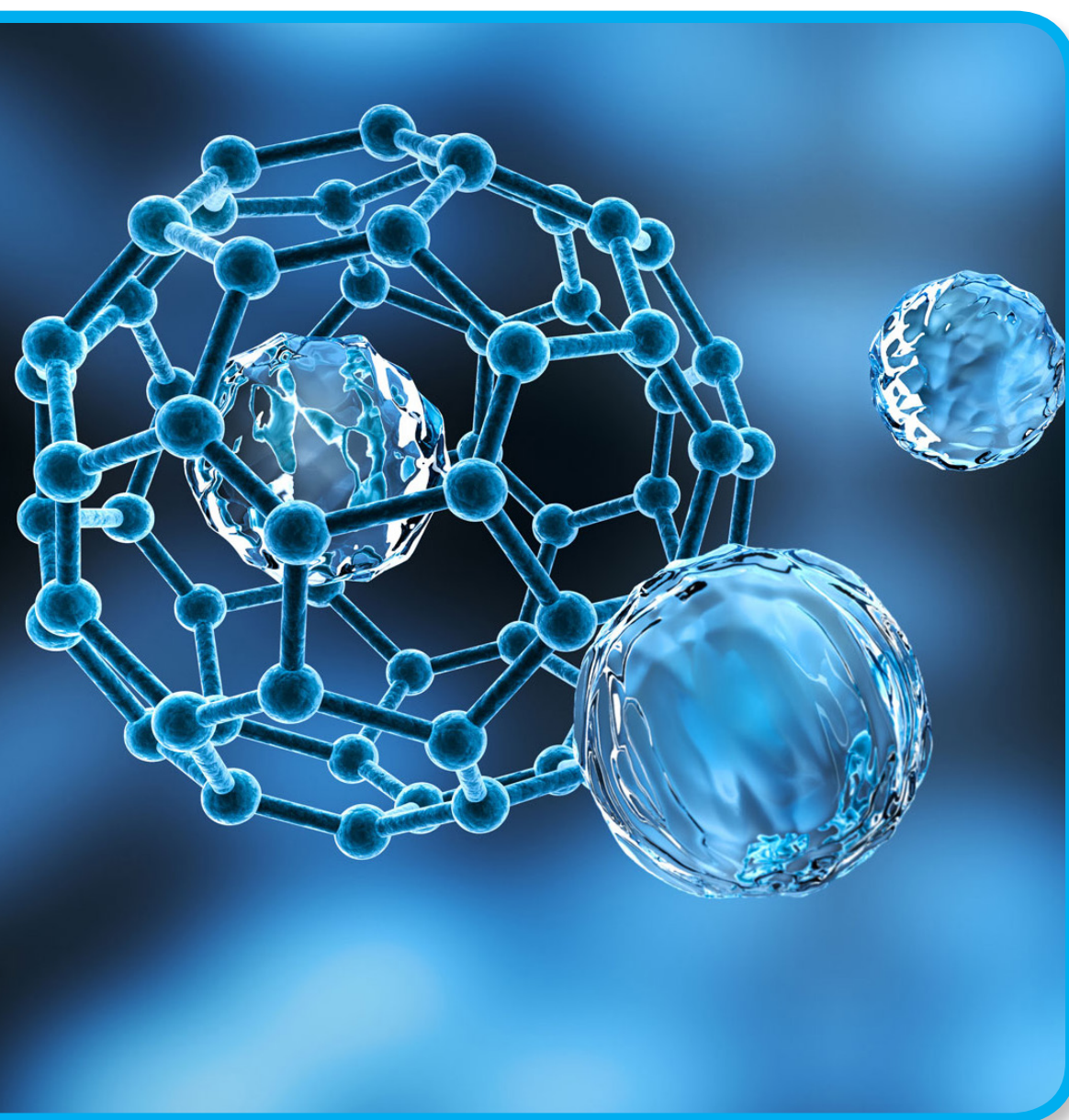


5th WORLD CONGRESS ON

SMART AND EMERGING MATERIALS

APRIL 19-20, 2018 DUBAI, UAE



SMART MATERIALS MEET 2018

Conference series

47 Churchfield Road, London, W3 6AY, UK

Toll Free number: +44-2088190774

Email: smartmaterials@enggconferences.com | smartmaterialcongress@materialsconferences.org

09:00-09:30

Registration Opens

Salon III

09:30-10:00

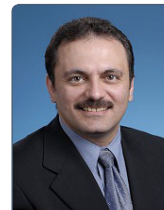
Opening Ceremony

10:00-10:05

Introduction

10:05-10:45

Keynote Presentation

Title: Strengthening/reinforcing concrete structures using shape memory alloy**Raafat El-Hacha**, University of Calgary, Canada

10:45-11:00

Networking and Refreshments Break with Group Photo @ Foyer

11:00-11:40

Keynote Presentation

Title: Semiconductor nonlinear effect assisted magnetoresistance and magnetic logic**Xiaozhong Zhang**, Tsinghua University, China

11:40-12:20

Keynote Presentation

Title: On the two way shape memory effect of NiTi/NiTiCu bi-layer composites: Experimental and numerical study**Mahmoud Nili Ahmadabadi**, University of Tehran, Iran
Sessions: Materials in Health & Biomedicine | Materials for Energy Storage & Applications | Materials Science & Engineering | Market Demand & Value
Session Chair: **Mahmoud Nili Ahmadabadi**, University of Tehran, IranSession Co-Chair: **Janah Shaya**, University de Strasbourg, France

12:20-12:50

Title: Shifting to biorefinery, monomers, biopolymers, biosorbents and biomaterials from renewable lipid resources**Aman Ullah**, University of Alberta, Canada

12:50-13:20

Title: Corrosion behaviour of Magnesium/Glass microballoon syntactic foams targeting engineering and biomedical applications**Manoj Gupta**, National University of Singapore, Singapore

Lunch Break 13:20-14:20 @ The Marketplace Restaurant

14:20-14:50

Title: Towards high performance solvent-free fluidic devices**Janah Shaya**, University de Strasbourg, France**Special Session**

14:50-15:50

Title: Near term commercial applications for graphene, composites and conductive pastes**Ray Gibbs**, Haydale Limited, United Kingdom

Networking and Refreshments Break: 15:50-16:15 @ Foyer

Sessions: Synthesis & Characterization | Smarter Lifestyle | Materials for Environmental Applications
Session Chair: **Manoj Gupta**, National University of Singapore, SingaporeSession Co-Chair: **Janah Shaya**, University de Strasbourg, France

16:15-16:45

Title: Cross-over between collective and independent-particle excitations in quasi-2D electron gas with one filled miniband**Vladimir U. Nazarov**, Academia Sinica, Taiwan

16:45-17:15

Title: Architectural documentation of heritage buildings in UAE**Ashok Ganapathy Iyer**, Manipal Academy of Higher Education, Dubai

Poster Presentations@ 17:15-17:30

Poster Judge: **Manoj Gupta**, National University of Singapore, Singapore

PSM-01

Title: Illusions in architecture

Anumol Thomas, Manipal Academy of Higher Education, Dubai

PSM-02

Title: Sustainable campus design in Dubai promoting physical activity within the built environment

Aishwarya Thomas, Manipal Academy of Higher Education, Dubai

PSM-03

Title: BioSkin Facades: A reinterpretation of the Mashrabiya

Sundara Vadhana Gurushev, Manipal Academy of Higher Education, Dubai

PSM-04

Title: Industrial architecture through a textile factory

Saigeethalakshmi, Manipal Academy of Higher Education, Dubai

PSM-05

Title: Eco-Panelling: Parametric solutions for façade configurations

Christy Paul Joseph, Manipal Academy of Higher Education, Dubai

Panel Discussion

Friday 20th April 2018

Day 2

Salon III

09:00-09:40

Keynote Presentation

Title: Multiphysics: Materials challenges in industrial applications

Mojtaba Moatamedi, UiT The Arctic University of Norway, Norway



09:40-10:20

Keynote Presentation

Title: Light weight Magnesium based materials for CO₂ mitigation and biomedical applications

Manoj Gupta, National University of Singapore, Singapore



Scientific Sessions: Property Changing Smart Materials | Smart Materials & Structures | Materials in Industry | Emerging Materials | Nano Smart Materials | Future of Materials

Session Chair: **Hamayun Khan**, Islamia College University, Pakistan

Session Co-Chair: **Janah Shaya**, University de Strasbourg, France

10:20-10:50

Title: Effect of Ag-doping on the properties of ZnO thin films for UV stimulated emission

Ahmed S Razeen, Cairo University, Egypt

Networking and Refreshments Break with Group Photo 10:50-11:05 @ Foyer

11:05-11:35

Title: Simultaneous synthesis of single-layer and multi-layer graphene

Zoran Eres, Rudjer Boskovic Institute, Croatia

11:35-12:05

Title: Polypyrrol/MnO₂ composites: Synthesis, characterization and analytical applications

Hamayun Khan, Islamia College University, Pakistan

Workshop

12:05-13:05

Title: Novel applications of smart materials and structures in disaster mitigation

Hiroshi Asanuma, Chiba University, Japan

Lunch Break 13:05-14:05 @ The Marketplace Restaurant

Special Session

14:05-15:05

Title: Smart materials - A quantum jump in technological advancement

Santanu Mandal, Carborundum Universal Limited, India

Scientific Sessions: Bioactive Smart Materials | Shape Changing Smart Materials

Session Chair: **Hamayun Khan**, Islamia College University, Pakistan

Session Co-Chair: **Janah Shaya**, University de Strasbourg, France

15:05-15:35

Title: Copper-Indium-Sulfide based flexible electrodes for solar water splitting

Nazrin Abdullayeva, TOBB University of Economics and Technology, Turkey

15:35-16:05

Title: Aluminium quenched Brownmillerite type $\text{SrCoO}_{2.5}$ for oxygen enrichment

Arun M. Umarji, Indian Institute of Science, India

Networking and Refreshments Break : 16:05-16:20@ Foyer

16:20-16:35

Title: Electron energy-loss spectroscopy of quasi-2D crystals: Beyond the energy-loss functions formalism

Vladimir U. Nazarov, Academia Sinica, Taiwan

16:35-16:50

Title: Amphiphilic polymeric nanoparticles for drug delivery

Aman Ullah, University of Alberta, Canada

16:50-17:05

Title: Economic syntheses of push-pull fluorene probes using air-stable Pd catalytic systems: Applications into imaging of lipid membranes

Janah Shaya, Université de Strasbourg, France

Poster Presentations @ 17:05 - 17:30

Poster Judges: **Santanu Mandal**, Carborundum Universal Limited, India

PSM-06

Title: Fabrication of device quality VO_2 thin films

Arun M Umarji, Indian Institute of Science, India

PSM-07

Title: Evolution of lightweight high entropy alloys for weight critical applications

Manoj Gupta, National University of Singapore, Singapore

PSM-08

Title: Green bionanocomposites from renewable resources

Aman Ullah, University of Alberta, Canada

PSM-09

Title: Dumbbell-shaped donor-acceptor material based on Zinc Phthalocyanine

Janah Shaya, Université de Strasbourg, France

PSM-10

Title: Development of Disulfonated Poly (arylene ether sulfone) copolymer membranes for Li^+ flow batteries

Nazrin Abdullayeva, TOBB University of Economics and Technology, Turkey

PSM-11

Title: Fabrication of self-healing coating for withstanding desert based climate conditions

Fatima Al Hameli, Khalifa University, UAE

PSM-12

Title: Fabrication of antireflection and anti-soiling coatings for desert based solar panels

Nujood Saeed Ali AlShehhi, Khalifa University, UAE

PSM-13

Title: Synthesis of PEG-PLA diol as a new soft segment for biodegradable Urethane products

Peyman Akbari, Iran Polymer and Petrochemical Institute, Iran

PSM-14

Title: Supramolecular gelatin nano-composites with enhanced sol-gel transition temperature

Mahshad Mohseni, Iran Polymer and Petrochemical Institute, Iran

PSM-15

Title: Synthesis and stabilization of highly conductive SrCoO_3 to increase fuel cell efficacy and performance

Takin Ghavimi, University of Tehran, Iran

PSM-16

Title: Study of surface characteristics of biomaterials used for medical devices and biosensors

Hadi Firoozi, Islamic Azad University, Iran

PSM-17

Title: Fabrication of new composite LSCF/BSCF material to increase electrochemical performance of fuel cells

Takin Ghavimi, University of Tehran, Iran

Panel Discussion