
Editorial

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Biographical notes: A. Nirmala Grace is Professor and Director at the Centre for Nanotechnology Research, Vellore Institute of Technology (VIT), Vellore, India. She received her PhD degree from the University of Madras, India and worked as a Postdoctoral/Senior Researcher Fellow at the Korea Institute of Energy Research, South Korea on Renewable Energy. She is a Fellow of the Royal Society of Chemistry (FRSC), Fellow of the Academy of Sciences, Chennai (FASCh) and member of International Solar Energy Society (ISES). Her current research interests include Energy materials, design and fabrication of electrodes for dye sensitised, perovskite solar cells; Electrodes for supercapacitors – Morphological studies of supercapacitor electrodes and study of electrochemical redox reactions at the interface of electrodes and electrolytes; Engineering of inter-layer spaces in 2D materials to improve the ion accessibility; Tuning the structure and porosity of electrode materials; Flexible energy devices for conversion and storage – flexible and printable supercapacitors for wearable devices such as sensors and energy conversion.

She has more than 140 international peer reviewed publications and has edited a book, authored three book chapters. She is in the Editorial board of journals including *Scientific Reports* (A Nature Journal), *ACS Applied Nano Materials*, *IET Nanobiotechnology*; Review Editor of *Frontiers in Catalysis*, *Frontiers in Polymer Chemistry*.

Pratap Kollu is an Assistant Professor at Center for Advanced Studies in Electronics Science and Technology (CASEST), School of Physics at the University of Hyderabad, India. He is also Newton Alumnus researcher to Cavendish laboratory, University of Cambridge, UK. His PhD in Materials Engineering is from Chungnam National University, Daejeon, South Korea. He completed his MPhil and MSc in Electronics from Andhra University, Visakhapatnam, India. He is a gold medallist from the university during his Master's course. His Post-Doctoral positions are at Tyndall national institute, Ireland, Indian institute of technology (IIT) Bombay and at University of Cambridge, UK. He is awarded the Newton International fellowship jointly by the Royal Society, UK and the British Academy, UK and he is awarded the INSPIRE faculty fellowship by Department of Science and Technology (DST), Government of India. His research areas include design and fabrication of magnetic sensors, prototype development for navigation and biosensor applications. He also works on 2D material metal nanocomposites for energy, multiferroics and water purification applications. He has published in 80 international peer-reviewed journals. He is also a recipient of young scientist award during the *9th International Conference on Advanced Materials and Processing* held at Northeastern University, Shenyang, China (2018).

John V. Kennedy is a Principal Scientist, Group Leader, Advanced Materials and Nanotechnology at National Isotope Centre, GNS Science (Institute of Geological and Nuclear Science), New Zealand Crown Research Institute. He carried out his PhD research at the Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, India and Post-Doctoral research in Belgium and France before joining GNS Science in 2001. He has authored/co-authored over 200 publications, and cited for over 7000 times, and h-index is 52. He also obtained 23 patents and delivered about 50 invited talks. His research interests are thin films, metal and metal oxide nanoparticle growth and their structural, electrical, optical, catalytic, magnetic, thermoelectric, photocatalytic properties and devices for energy conversion and efficiency.

Raja Sellappan received his BE in Electrical and Electronics Engineering in 2002 from Bharathiar University, India. He moved to Sweden, where he received his Master's degree in Electrical Engineering specialised in Molecular Electronics and System Design in 2008 from Linköping University. He was awarded a PhD in Materials Science in 2013 from Chalmers University of Technology in Göteborg, Sweden. He joined Vellore Institute of Technology in 2014 and has been currently serving as an Associate Professor in the Centre for Nanotechnology Research (CNR). He has been serving as a principal/co-principal investigators for the two on-going DST funded projects in solar energy conversion. His area of interest includes nanomaterials for solar energy harvesting (solar cells and solar fuels), flexible opto-electronics, photochemistry, and thin films deposition.

R. Vimala is an Associate Professor at the Centre for Nanotechnology Research, VIT, Vellore, India. She received her PhD degree in Environmental Biotechnology from Vellore Institute of Technology, Vellore, India. Her current research interests include various niche areas of nanotechnology like nanomaterials: synthesis, characterisation and application for remediation of environmental pollution, photocatalysis, nanomaterials for antifouling

strategies, nanomaterial mediated drug delivery; bioremediation: adsorbents for removal of organic and inorganic pollutants for aqueous environment. She has published more than 50 research papers in national and international peer reviewed journals.

George Jacob is an Assistant Professor from Centre for Nanotechnology Research, Vellore Institute of Technology, Vellore, India. He completed his Master's in Electronic Sciences and Nanotechnology from Sathyabama University Chennai India and VIT University Vellore India from 2006 and 2008. Currently, he is doing his PhD in Graphene Plasmonics. As a Faculty of Nanotechnology masters course and an active researcher in the Centre, he has more than 10 years of experience in Scanning Probe Microscopy and its advanced applications. He is expert in computational analysis of 2D graphene in COMSOL Multiphysics and Lumerical FDTD. He has more than ten journal publication and four conference publications. He is the university consultancy coordinator for nanomaterial characterisation for academic and industrial projects. His current research area is plasmonic nanomaterials for various photonic applications, graphene plasmonics, patterning of graphene for band gap tuning and energy enhancement. Engineered nanomaterials for energy generation and conversion. Conductive nanomaterials for printed electronics; flexible and transparent electronics.

We are pleased to announce the publication of selected papers from the *2nd International Conference of Nanoscience and Nanotechnology (ICNAN'19)* held at the Vellore Institute of Technology (VIT), Vellore, India from 29th November to 1st December, 2019. The aim of this special issue includes, but is not limited to, Computational Materials science, Nano enabled Electrochemical Sensors and Systems, Functional Materials for Energy and Environment, Photonics, Bio-Energy and Bio-remediation – A Green sustainable Technologies, Electro ceramics.

ICNAN'19 was organised by the Centre for Nanotechnology Research (CNR), Vellore Institute of Technology, Vellore in November 2019. ICNAN'19 was aimed to provide a platform for researchers, scientists and industrialists across the globe to exchange, discuss the state-of-the-art research and development and identify the future demands and needs in the field of nanoscience and nanotechnology. Nanotechnology, the manipulation of matter at the atomic and molecular scale to create materials with extraordinarily novel and unusual properties, is a rapidly escalating domain of research with huge potential to revolutionise the world and our lives. It holds the promise to answer some of the world's most immediate concerns in energy, electronics, agriculture, environment, information technology and medicine. Particularly, the last few years have witnessed great expansion of nanoscience and nanotechnology offering massive opportunities. It is highly interdisciplinary, encompassing all the domains of science and technology.

Contributions to this Special Issue in *International Journal of Nanotechnology* are from papers presented in ICNAN'19.