


January 2, 2019	
Pre-conference Workshop	
9.00 - 10.00	Pre-conference registration
10.00 - 11.00	Talk 1 - Prof. Ayodhya N. Tiwari , Swiss Federal Laboratories for Materials Science and Technology (EMPA), Switzerland “Solar cells: Unfolding the opportunities for a better sustainable future”
11.00 - 11.15	Tea break
11.15 - 12.15	Talk 2 - Prof. Suresh C. Pillai , Institute of Technology, Sligo, Ireland “Nanotechnology and its applications”
12.15 - 13.30	Lunch
13.30 - 14.30	Talk 3 - Prof. Murukeshan Vadakke Matham , Nanyang Technological University, Singapore “Optical interference at micro and nano-scale and its industrial application”
14.30 - 15.30	Talk 4 - Dr. Narayanan T. N. , TIFR, Hyderabad, India “Physics and Chemistry of Atomic Layers”
15.30	Tea break

January 3, 2019			
7.30 - 9.00	Conference - Registration		
9.00 - 9.30	Inauguration		
9.30 - 10.15	Plenary Talk P1 - Ayodhya N Tiwari Head of Laboratory for Thin Films and Photovoltaics, Swiss Federal Laboratories for Materials Science and Technology (EMPA), Switzerland “Advancements in thin film solar cells and emerging opportunities”		
10.15 - 10.30	Tea/Coffee break		
Parallel Sessions	SYM. A: Nanomaterials (Hall-A)	SYM. B: Coatings and Thin Films (Hall-B)	SYM.C: Materials for Solar Energy (Hall-C)
Session Chairs	Honey John Aneesh P. M.	K. Rajeev Kumar Anoop K. K.	Manoj N. Aldrin Antony
10.30 - 11.10	Key Note: A1 Murukeshan Vadakke Matham Nanyang Technological University, Singapore “Effect of nanoscale contrast agents in multi-modality diagnostic high resolution imaging”	Key Note: B1 M. S. R. Rao IIT Madras, India “Nano-functional materials and surface coatings using versatile PVD and CVD methods for energy and sustainability”	Key Note: C1 K. Ravindranathan Thampi University College, Dublin, Ireland “Opportunities and challenges facing use of nanomaterials in renewable energy applications”
11.10 - 11.45	Invited Talk (IT) - A2 Gin Jose University of Leeds, UK “Ultrafast laser plasma doping- a novel approach to integrated photonic materials and devices engineering”	IT - B2 T. N. Narayanan TIFR, Hyderabad, India “Molecular junctions - catalysis to electronics”	IT - C2 Giovanni Landi Institute of Polymer Composites and Bio materials, Italy “Noise spectroscopy as a tool for characterization of perovskite, organic and silicon solar cells”
11.45 - 12.20	IT - A3 Svetlana von Gratowski Kotel'nikov Institute of Radioengineering and Electronics, Russia “Mechanical bottom-up nano-assembling and nanomanipulation using shape memory alloy nano-gripper”	IT - B3 Maneesh Chandran NIT Calicut, India “Fabrication of ultrathin nitrogen delta doping layer in diamond”	IT - C3 Heinrich Christoph Neitzert University of Salerno, Italy “Radiation hardness of perovskite solar cells”
12.20 - 13.05 <i>Oral Presentation</i>	OSA 1 - OSA 3	OSB 1 - OSB 3	OSC 1 - OSC 3
13.05 - 14.00	Lunch Break		

14.00 - 14.45	Plenary Talk P2 - Jayan Thomas , CREOL and College of Engineering, USA “Self-powering fibers: fabrics to power your wearable devices”		
Session Chairs	S. Prathapan G. S. Sailaja	Pramod Gopinath Priya Rose	Sunil K. Narayanankutty Saji K. J.
14.50 - 15.25	IT - A4 Vikas L. S. Government Arts College, Thiruvananthapuram, India “Development of Fast Heterojunction UV Detector Using Epitaxially Grown ZnO Nanorods by Simple Solution Processing”	IT - B4 Kiran P. Adhi University of Pune, India “Pulsed laser deposited Al and Ga doped ZnO thin films on c-Al ₂ O ₃ and SiO ₂ /Si (100) substrates: Basic studies and its application as field emitter”	IT - C4 Tzu-chein Wei/Tsung Yu Hsieh National Tsing Hua University, Taiwan “Highly efficient plastic perovskite solar cell fabricated from aqueous lead nitrate precursor and sequential deposition”
	15.25 - 16.25 <i>OSA 4 - OSA 7</i>	15.25 - 16.25 <i>OSB 4 - OSB 7</i>	15.25 - 16.00 IT - C5 Joaquim Puigdollers Universitat politècnica de Catalunya, Spain “Effect of permanent dipole layer in the electrical characteristics of electronic devices and solar cells”
			16.00 - 16.35 IT - C6 Suraj Soman CSIR-NIIST, Trivandrum, India “Dye-sensitized solar cells: Transforming science to technology”
16.30 - 18.00	<i>Tea Break</i> Poster Sessions (PSA 1-34, PSB 1-8, PSC 1-17, PSD 1-13, PSE 1-6)		
18.00 onwards	<i>Cultural programmes and Conference dinner</i>		

January 4, 2019			
9.00 - 9.45	Plenary P3 - Shantikumar Nair Amrita Institute of Medical Sciences and Research Centre, India “Nano-enabled drug delivery: Mapping opportunities for innovation”		
9.45 - 10.00	<i>Tea/Coffee break</i>		
Parallel Sessions	SYM. A: (Hall-A)	SYM. B: (Hall-B)	SYM. C: (Hall-C)
Session Chairs	M. R. Anantharaman Senoy Thomas	M. Junaid Bushiri Anoop K. K.	K. P. Vijayakumar Aldrin Antony
	10.00 - 10.40 Key Note: A5 Suresh C. Pillai Institute of Technology, Sligo, Ireland “Semiconductor nanomaterials for photocatalytic applications”	10.00 - 10.35 IT - B5 Hiroaki Nishikawa Kindai University, Japan “Controlling the electronic properties of LaMO ₃ (M = Mn, Fe, Co) by electron doping beyond the hetero-interface with LaTiO ₃ ”	10.00 - 10.35 IT - C7 Xavier Mathew UNAM, Mexico “CdTe photovoltaics: Material development, junction activation and alloying”
	10.40 - 11.15 IT - A6 Reji Philip Raman Research Institute Bangalore, India “Optical power limiting with nanomaterials”	SYM. F: Nano Bio, Nanocatalyst and Nanotoxicology (Hall-B) Session chairs: Manzoor M. Sarita G. Bhat	10.35 - 11.10 IT - C8 Cristobal Voz Universitat politècnica de Catalunya, Spain “Dopant-free selective contacts for silicon-based solar cells”

	11.15 - 12.30 OSA 8 - OSA 12	10.35 - 11.05 IT - F1 R. Jayakumar Amrita Institute of Medical Sciences and Research Centre, India “Injectable nanocomposite hydrogels in healthcare”	11.10 - 11.40 OSC 4 - OSC 5
			Session chairs: C. K. Aanandan Sebastian NybinRemello
		11.05 - 11.25 Young Faculty IT(YIT) - F2 Aravind Kumar Rengan IIT Hyderabad, India “Organo-Inorganic hybrid nanomedicines for cancer theranostics”	SYM. E: Transparent Electronics and Devices (Hall-C) 11.40 - 12.20 Key Note: E1 Anil Kumar P.S. IISc Bangalore, India “n-p-n transistors with topological insulators”
	12.30 - 12.50 Industrial talk	11.25 - 11.45 YIT - F3 Anusha Ashokan Cochin University of Science and Technology, India “Application of nanotechnology for improving efficacy of cancer immunotherapy”	12.20 - 12.55 IT - E2 Chetan Panchal M. S. University of Baroda, Vadodara, India “Status of development of blue light emitting diode packages at the M. S. University of Baroda”
		11.45 - 12.30 OSF 1 - OSF 3	
		12.30 - 13.00 IT - F4 Lissy K. Krishnan SCTIMST, Trivandrum, India “Stem cell engineering for fabrication of functional vascular tissue”	
13.00 - 14.00	<i>Lunch break</i>		
	Session chair: S. Jayalekshmi Susmita De	Session chairs: Manzoor M. Baby Chakrapani	Session chair: Thomas Kurian JayalathaGopalakrishnan G.
	SYM. D: Materials for Energy Storage (Hall-A) 14.00 - 14.40 Key Note: D1 G. Mohan Rao IISc, Bangalore, India “Thin film microbatteries - material issues and solutions”	14.00 - 14.30 IT - F5 R. S. Jayasree SCTIMST, Trivandrum, India “A comprehensive understanding of the breast cancer therapeutic efficiency of vanadium nanospheres: An electron microscopic story”	14.00 - 14.35 IT - E3 K. G. Sreejalekshmi IIST, Trivandrum, India “One core, many colours: Thiazolylthiophene core for the design of dual state multicolour emitters”
	14.40 - 15.15 IT - D2 Shaijumon M. M. IISER, Trivandrum, India “Functional hybrid materials for rechargeable batteries”	14.30 - 15.00 IT - F6 Deepthy Menon Amrita Institute of Medical Sciences and Research Centre, India “Smart nanotextiles as vascular implants”	14.35 - 15.10 IT - E4 K. P. Surendran CSIR NIIST, Trivandrum, India “Printable Ni and Ag nanostructures: From materials to devices”
	15.15 - 16.00	15.00 - 15.30 IT - F7	

	<p>Special Invited Talk</p> <p>P. M. Ajayan Rice University, USA</p> <p>“Nano-engineered materials: Outlook”</p>	<p>Reji Varghese IISER, Trivandrum, India “DNA-Decorated soft nanostructures”</p> <p>15.30 - 15.50 YIT- F8 Girish C. M. Amrita Institute of Medical Sciences and Research Centre, India “Surface enhanced Raman spectroscopic substrates for Raman spectro-pathology and diagnosis of tumours”</p>	
15.50 - 16.10	<i>Tea/Coffee Break</i>		
16.15 Onwards	<i>Tour : Sunset Cruise</i>		

January 5, 2019			
Session chairs	<p>Asha A. S. Suja Haridas 9.00- 9.35 IT - D3 Victor Koledov Kotel'nikov Institute of Radio Engineering and Electronics, Russia “New functional nano-materials for nanotechnology, biomedicine and energy”</p>	<p>Sarita G. Bhat AjithVengellur 9.00 - 9.20 IT - F9 Ganesh Kumar Mani Tokai University, Japan “Mosquito bite inspired miniaturized sensor technology for health care applications”</p>	<p>Sabeena M. Kala R. 9.00 - 9.35 IT - E5 P. R. Biju SPAP, M. G. University, India “Upconversion phosphors for photonic applications”</p>
	<p>9.35 - 10.10 IT - D4 Salini P. S. VSSC, Trivandrum, India “Advanced materials for Lithium-ion cells”</p>	<p>9.20 - 9.55 IT - F10 Kuruvilla Joseph IIST, Trivandrum, India “Surface engineered nanosystems for bio-medical applications”</p>	<p>9.35 - 10.50 <i>OSE 1 - OSE 5</i></p>
	<p>10.10 - 10.30 YIT - D5 Adersh Asok CSIR NIIST, Trivandrum, India “Towards net-positive energy technology via intelligent solar light management”</p>	<p>SYM. B: Coatings and Thin Films</p> <p>Session chairs: M. Junaid Bushiri Anoop K. K.</p> <p>10.00 - 10.35 V. Natarajan IT - B6 DRDO Research park and Innovative Centre, IIT Madras, India “Piezo MEMS devices – realisation challenges”</p>	
Oral presentations	<p>10.30 - 11.00 <i>OSD 1-OSD 2</i></p>	<p>10.35 - 10.50 <i>OSB 8</i></p>	
11.00 - 13.00	<i>Tea Break</i> Poster Sessions (PSA 35-68, PSB 9-16, PSC 18-34, PSE 7-13, PSF 1-13)		
13.00 - 14.00	<i>Lunch break</i>		
	<p>14.00 - 14.45 <i>OSD 3 - OSD 5</i></p>	<p>14.00 - 15.00 <i>Oral presentations of selected best posters</i></p>	<p>14.00 - 14.45 <i>OSC 6 - OSC 8</i></p>
15.00	Valedictory Function		