



VIT<sup>®</sup>

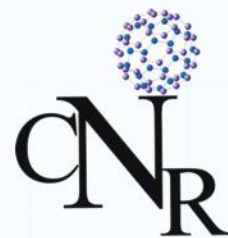
Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

VIT - Recognized as "Institution of Eminence (IoE)" by Govt. of India



ICNAN '19



## Schedule ICNAN'19 Conference Schedule

### 29<sup>th</sup> Nov, 2019-Inauguration Schedule

**Inauguration:** 10.00 AM -11.00 AM (Dr. M. Channa Reddy Auditorium,  
VIT Main Building)

**11.00 AM - 11.15 AM** – Tree Plantation & Group Photo

**11.15 AM -11.30 AM** – High Tea (Near Dr. M. Channa Reddy Auditorium)

**Plenary Talks (11.30 AM – 1.15 PM)**

**Session Chair :** Dr. Bruno D'Aguanno, CNR, VIT.

**11.30 AM - 12.15 PM – Guest Plenary Talk**

Dr. Ada E. Yonath, Department of Structural Biology,  
Weizmann Institute, (Nobel Laureate in Chemistry, 2009)

**Title:** *From basic science to modern medicine*

**12.15 PM – 1.00 PM – Guest Plenary Talk**

Dr. Yury Gogotsi, Charles T. and Ruth M. Bach Distinguished  
University Professor, Director, A.J. Drexel Nanomaterials Institute,  
Drexel University, USA

**Title:** *The Rise of MXenes*

**1.00 PM – 2.00 PM** – Conference Lunch (Foodys)

## 29<sup>th</sup> November Afternoon

Time	Venue : Gallery 1 (TT - 028)		Venue : Ambedkar Auditorium (TT - 018)		
Session chair	Dr. Yury Gogotsi, Drexel University, USA		Dr. Zachariah C Alex, VIT, India		
Faculty Coordinator	Dr. A. Nirmala Grace, VIT		Dr. Ashutosh Mahajan, VIT		
2.30-3.15 PM	Plenary: Dr. Jayan Thomas, University of Central Florida, USA. Title: Self-powering fabrics: An approach to power your phone from your coat		Plenary: Dr. Sabu Thomas, Vice Chancellor, Mahatma Gandhi University, Kerala, India. Title: Engineering at the Nanoscale: A Strategy for Developing High Performance Functional Polymer Nanocomposites		
3.15-4.00 PM	Plenary : Dr. Suddhasatwa Basu, CSIR-IMMT, India Title: Nano Structured Materials for Energy Storage Devices		Plenary: Dr. David Jenkins, Plymouth University, UK Title: Nanodevices and Nanomaterials for Early Onset Disease Detection and Prevention		
4.00-4.15 PM	TEA BREAK (Near TT Portico)				
Venue	TT311	Ambedkar Auditorium (TT018)	TT312	Gallery I (TT028)	
Sessions	Nano in Energy	Nanotechnology for Sensors	Nanocoatings	Advanced Nanomaterials	
Session Chairs	Dr. Kafil M Razeeb, University College Cork, Ireland	Dr. John V.Kennedy, GNS Science, New Zealand	Dr. Giorgia Pastorin, NUS, Singapore	Dr. Harish Kittur M, VIT	
Faculty coordinator	Dr. K. R. Ethiraj, VIT	Dr. Ashutosh Mahajan, VIT	Dr. Krishnachandar, VIT.	Dr. K. Govardhan, VIT	
4.15 - 4.45 PM	Keynote Dr. Manuel Stephen, CSIR-CECRI, India Title : Nanostructured Materials for Lithium Sulfur Batteries	Keynote Dr. Pranab Goswami, IITG, India Title: Nanomaterials in biocatalyst - electrode interface for harvesting power in biofuel cells and sensor applications	Keynote Dr. Abdul Khaliq Rasheed, Xiamen University, Malaysia Title: Nanolubricants: From research bench to commercialization	Keynote Dr. Weiping Wu, City, University London, UK Title: Functional carbon materials for optoelectronics, energy and environmental applications	
4.45-5.45 PM	Oral Presentations 4.45-5.45 PM (10+2 min for each oral)				
Venue	TT311	Gallery 1 (TT028)	TT312	Ambedkar (TT018)	TT 343A
Faculty Coordinator	Dr. Asha Devi	Dr. K. Govardhan	Dr. Krishnachandar	Dr. Krishnamoorthi	Dr. R.Vimala, CNR
Session Evaluator	Dr. K. R. Ethiraj, VIT	Dr. Arunkumar Chandrasekhar, VIT	Dr. Cheralathan K.K, VIT	Dr. Bagubali A, VIT	Dr. Anand S, VIT
Rapporteur	Mr. G. Vasanth	Dr. Kishore V. Krishnan	Mr. Sudhagar	Mr. Sathya Prabhu	Dr.Preetam Bhardwaj
	OP01- ICNAN2019100593	OP05- ICNAN2019100786	OP09- ICNAN2019100042	OP13- ICNAN2019100021	OP17- ICNAN2019100222
	OP02- ICNAN2019100101	OP06- ICNAN2019100635	OP10- ICNAN2019100252	OP14- ICNAN2019100057	OP18- ICNAN2019100026
	OP03- ICNAN2019100182	OP07- ICNAN2019100740	OP11- ICNAN2019100255	OP15- ICNAN2019100446	OP19- ICNAN2019100253
	OP04- ICNAN2019100633		OP12- ICNAN2019100649	OP16- ICNAN2019100445	OP20- ICNAN2019100717
5.30-6.30 PM	Poster session (150 Posters) – Foodys Session Incharge – Dr. Palla Penchalaiah & Dr.Ashutosh, CNR, VIT 5.00-5.30 PM Evaluation by Expert Team, 5.30-6.30 open to all				
7.30-8.30 PM	Dinner - Greeno				

### 30<sup>th</sup> November Forenoon

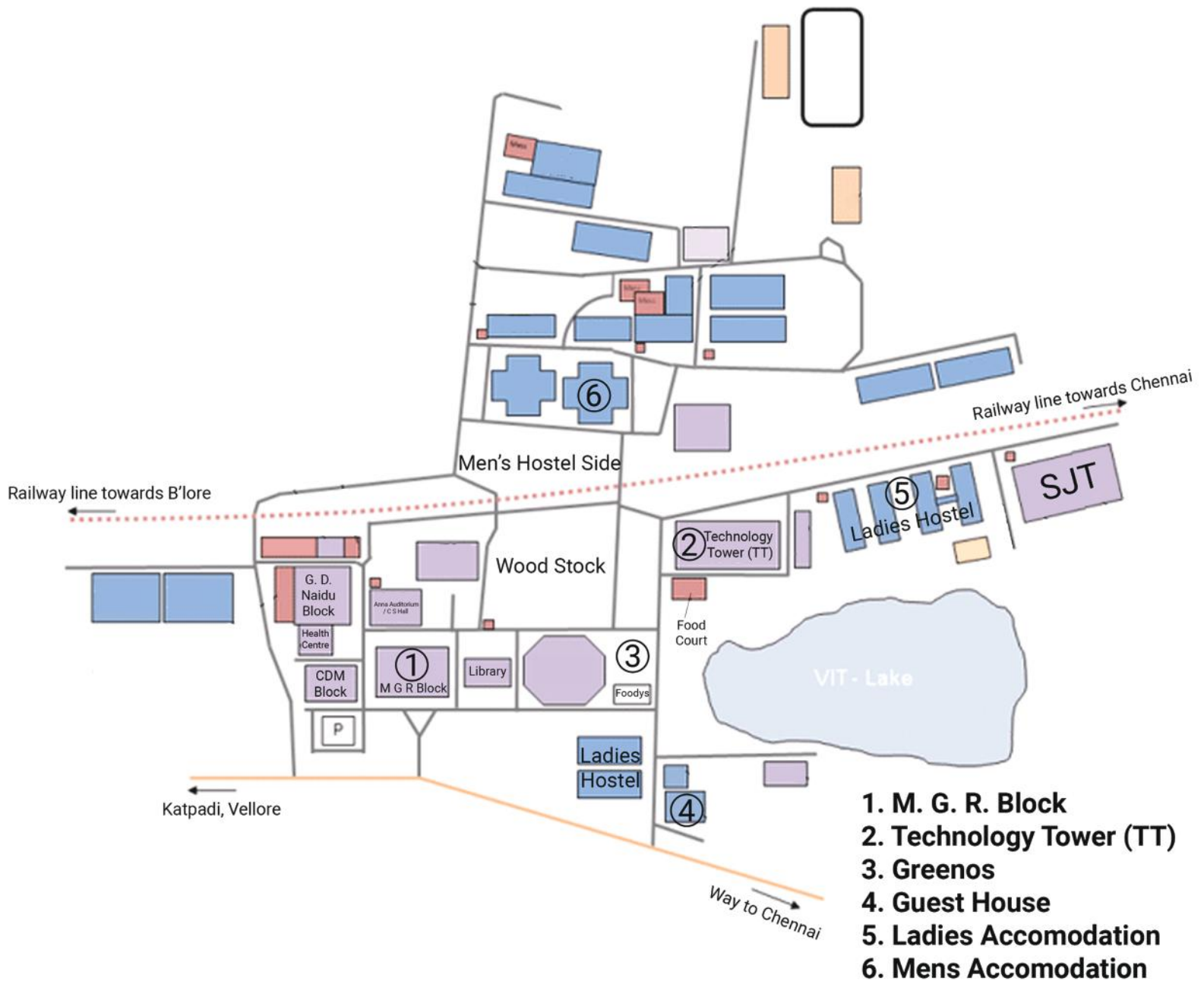
Time	Venue: Gallery I		Venue: Ambedkar Auditorium		
Session Chair	Dr.P.Arulmozhivarman, VIT		Dr. Suddhasatwa Basu, CSIR-Institute of Minerals & Materials Technology (IMMT), India.		
Faculty Coordinator	Dr. Ashutosh Mahajan, VIT		Dr. R. Vimala, VIT		
9.00 -9.45 AM	Plenary: Dr. Huang Nay Ming, Xiamen University, Malaysia. Title: Graphene-based nanomaterials for electrical energy storage applications		Plenary: Dr. John V Kennedy, GNS Science, New Zealand. Title: Nanostructured metal oxide composite materials for infrared reflective energy efficient cool coatings		
9.45-10.15 AM	Plenary: Dr. Gilberto Maia, UFMS, Brazil. Title: Electrocatalysts applied toward oxygen and hydrogen evolution reactions and oxygen reduction reaction		Plenary: Dr. Norman J. Wagner, University of Delaware, USA Title: Applications of Neutron Scattering Measurements to Biopharmaceutical Formulations		
10.15-10.45 AM	Plenary - Dr. Keiji Nagai, Tokyo Institute of Technology, Japan Title: Photocatalyst by the use of Organic Semiconductors		Plenary: Dr. Somnath Bhattacharyya, University of Witwatersrand, South Africa Title: Carbon based nanotechnologies for the future		
10.45-11.00 AM	TEA BREAK (TT Lobby)				
	Keynote Lectures (11.00 – 12.30 PM)				
Venue	Gallery I (TT028)	TT312	Ambedkar Auditorium (TT018)	TT 311	
Sessions	Nano in Energy	Nanotechnology for Sensors	Nanobiotechnology	Advanced Nanomaterials	
Session Chairs	Dr. Jayan Thomas, University of Central Florida, USA.	Dr. Mary Saral, SAS, VIT, India (9444736969)	Dr. Pragasam, SBST VIT, India (9629096957)	Dr. Vasudevan, SMEC, VIT, India (9500027238)	
Faculty coordinator	Dr. S. Sivanantham, VIT	Dr. Asha Devi, VIT	Dr. Arun Kumar Chandrashekar, VIT	Dr. Dhritiman Gupta, VIT	
11.00-11.30 AM	Keynote Dr. Sherry Xu, The University of Auckland, New Zealand.  Title: Fabrication of semiconductor nanowires for next generation devices	Keynote Dr. P. Saravanan, DMRL-DRDO, India  Title: Development of Permanent Magnetic Thin Films for Sensor and Actuator Applications	Keynote Dr. Kafil M. Razeeb, University College cork, Ireland.  Title: Smart Autonomous Sensor System for Vital Signs Monitoring	Keynote Mr. Servet Ozdemir, University of Manchester, UK. Title: Quantum Transport on Topologically Protected Flat Bands of ABC-stacked Multilayer Graphene.	
11.30-12.00 PM	Keynote Dr. M. Sathish, CSIR-CECRI, India.  Title: Recent Advances in Nanocarbon Materials for High Energy Symmetric/Asymmetric Supercapacitors	Keynote Dr. K. Pandian, University of Madras, India  Title: Covalent and noncovalent functionalised graphene flakes for electrochemical sensor applications	Keynote Dr. M. Jayabalan, Sree Chitra Tirunal Institute for Medical Sciences and Technology, India  Title: Theranostic polymeric nanogels for biomedical applications.	Keynote Dr. Chien-Hung Li, Kaohsiung Medical University, Taiwan.  Title: Novel N-heterocyclic Carbenes As Functionalized Ligand for Nanomaterials: From Surface to Nanoparticles	
12.00-12.30 PM	Keynote Dr. Pratap Kollu, University of Hyderabad, India.  Title: Porous CoFe <sub>2</sub> O <sub>4</sub> -reduced graphene oxide composites with alginate binders for Li-ion battery applications.	Keynote Dr. John Philip, IGCAR, India  Title: Magnetic nanofluid based Sensors.	Keynote Dr. K. Selvaraj, CSIR-NCL, India  Title: Promising new strategies in multifunctional materials designing for nanotheranostic applications	Keynote Mr. Nagaarjun Sridhar Applications Specialist – TA India  Title: Thermo-analytical characterization techniques of advanced nanomaterials	
12.30-1.10 PM	ORAL PRESENTATIONS (10+2 min for each presentation) (12.30-1.00 PM)				
Venue	TT311	TT312	Ambedkar Auditorium	Gallery I	TT343A
Faculty coordinator	Dr. Dhritiman Gupta, VIT	Dr. Asha Devi, VIT	Dr.Niroj K. Sahu, VIT	Dr. R. Vimala, VIT	Dr. Penchalaiah, VIT
Session Evaluator	Dr. Thirumanavelan Gandhi, VIT	Dr. Sumangala T P, VIT	Dr. Arpan Kumar Nayak, VIT	Dr. K. Sivasankaran, VIT	Dr. K. R. Ethiraj, VIT
Rapporteur	Mr. G. Vasanth	Ms.Jayashree	Mr. Sathya Prabhu	Mr.Sudhagar	Mr.Akbar Basha
	OP21- ICNAN2019100282	OP25- ICNAN2019100199	OP29- ICNAN2019100118	OP33- ICNAN2019100105	OP37- ICNAN2019100134
	OP22- ICNAN2019100552	OP26- ICNAN2019100310	OP30- ICNAN2019100017	OP34- ICNAN2019100589	OP38- ICNAN2019100137
	OP23- ICNAN2019100721	OP27- ICNAN2019100371	OP31- ICNAN2019100212	OP35- ICNAN2019100299	OP39- ICNAN2019100197
	OP24- ICNAM2019100412	OP28- ICNAN2019100201		OP36- ICNAN2019100234	OP40- ICNAN2019100532
1.00-2.00 PM	LUNCH BREAK (Foodys)				

### 30<sup>th</sup> November Afternoon

Time	Venue: Gallery 1 (TT028)		Venue : Ambedkar Auditorium (TT018)		
Session Chair	Dr. Amitava Mukherjee, VIT		Dr. P. Ramesh Babu, VIT		
Faculty coordinator	Dr. Jagan, VIT		Dr. K.R. Ethiraj, VIT		
2.00-2.45 PM	Plenary: Dr. Giorgia Pastorin, NUS Singapore Title: Advanced in nanomedicine : synthesis or biomimicry?		Plenary: Dr.R. Ramaraj, MKU, India Title: Nanostructured Materials Embedded in Polymer Matrix for Catalysis and Sensor Applications		
2.45-3.30 PM	Plenary: Dr. Andrea Floris, University of Lincoln, UK Title: Molecular processes at the nano-scale on insulating surfaces: kinetic control and covalent interactions		Plenary: Dr. Wei Pan, Tsinghua University, China Title: Device realization with nano-structured solid ionic electrolyte for oxygen sensor		
3.30-3.45 PM	TEA BREAK				
KEYNOTE LECTURES (3.45 -5.15 PM)					
Venue	TT311	TT312	Ambedkar Auditorium (TT018)	Gallery 1 (TT028)	
Sessions	Nano in Energy	Nano in Energy	Advanced Nanomaterials	Advanced Nanomaterials	
Session Chair	Dr. S. Sivabalan, VIT	Dr. Abdul Khaliq Rasheed, Xiamen University, Malaysia	Dr. Weiping Wu, City, University of London, UK	Dr. Devendranath Ramkumar, VIT	
Faculty coordinator	Dr. Bagubali, VIT	Dr. Kishore V. Krishnan, VIT	Dr. Krishna Chandar, VIT	Dr. Thirumanavelan Gandhi, VIT	
3.45-4.15 PM	Keynote Dr. Raman Vedarajan, ARCI, India. Title: One-Pot Synthesis of Electrocatalysts for Fuel Cell Application	Keynote Dr. Murali Banovath, University of Hyderabad, India. Title: Strategies for Enhancing Efficiency of Hybrid Perovskites and Bulk Heterojunction Solar Cells	Keynote Dr. Sandip Dhara, IGCAR, India. Title: Nano-spectroscopy and nanoscopy using plasmonic	Keynote Dr. R. Ilangoan, University of Madras, India Title: Rapid Synthesis and Characterization of Metal Nanoparticle from Collagen	
4.15-4.45 PM	Keynote 18 Dr. M. Kamruddin, IGCAR, India Title: Vertical Graphene Nanowalls for energy storage applications	Keynote Dr. S. Sakthivel, ARCI, India Title: Technology Development and demonstration of Nano Functional Coatings for Eco-Friendly Concentrated Solar Thermal and PV applications	Keynote Dr. Nandan Erathodiyil, A*Star, Singapore Title: Nanostructured Materials for Catalytic and Biomedical Applications	Keynote Dr. Vinoth Kumar, Kaohsiung University, Taiwan. Title: Nanomaterials based Microextraction Techniques Coupled with HPLC-MS/MS for the Rapid Analysis of Toxic Compounds in Complex Samples	
4.45-5.15 PM	Keynote Dr. N. Ponpandian, Bharathiar University, India Title: Photochemical and photoelectrochemical Water Splitting - The Untamed Dream	Keynote Dr. Mani Karthik, ARCI, India Title: Design and Fabrication of Supercapacitor as Next Generation Energy Storage and Conversion Device	Keynote 27 Dr. B. Subramanian, CSIR-CECRI, India Title: Metallic Glass Thin Films for Potential Biomedical Applications	Keynote 28 Dr. Umananda M Bhatta, Jyothy Institute of Technology, India. Title: <i>In-situ</i> TEM study of temperature dependent growth of embedded Ge nanostructures in SiO <sub>x</sub> /Si matrices	
5.15-6.00 PM	ORAL PRESENTATION (10+2 min for each presentation)				
Venue	TT311	TT312	Ambedkar Auditorium (TT018)	Gallery 1 (TT028)	TT 343A
Faculty Coordinator	Dr. Niroj Kumar Sahu, VIT	Dr. Debasish Mishra, VIT	Dr. V. Arunachalam VIT	Dr. K.R.Ethiraj, VIT	Mr. Syamsai VIT
Session Evaluator	Dr. Arpan Kumar Nayak, VIT	Dr. Vijayalakshmi, VIT	Dr. Thenmozhi, VIT	Dr. Asharani, VIT	Dr. Chiranjeevi, VIT
Rapporteur	Mr. Vasanth	Ms. Jayashree	Mr. Sudhagar	Ms. Tamil Selvi	Ms. Anusha
	OP41- ICNAN2019100109	OP45- ICNAN2019100464	OP49- ICNAN2019100279	OP53- ICNAN2019100051	OP57- ICNAN2019100187
	OP42- ICNAN2019100693	OP46- ICNAN2019100634	OP50- ICNAN2019100283	OP54- ICNAN2019100055	OP58- ICNAN2019100097
	OP43- ICNAN2019100047	OP47- ICNAN2019100027	OP51- ICNAN2019100549	OP55- ICNAN2019100214	OP59- ICNAN2019100558
	OP44- ICNAN2019100095	OP48- ICNAN2019100535	OP52- ICNAN2019100701	OP56- ICNAN2019100684	
6.00-7.00 PM	Poster session (150 Posters) – Foodys 6.00-6.30 evaluation 6.30-7.00 open to all				
7.30 PM	Dinner - Greeno				

# 1<sup>st</sup> December

Time	Venue: Gallery 1 (TT028)		Venue : Ambedkar Auditorium (TT018)		
Session Chair:	Dr.Ganapathy, VIT		Dr. Ramesh, VIT		
Faculty coordinator	Dr. Mangayarkarasi, VIT		Dr. Swathi, VIT		
9.00-9.40	<b>Plenary</b> <b>Dr. GOH Kuan Eng Johnson, NUS, Singapore</b> Title: Materials Engineering for Spin-valley Qubits		<b>Plenary</b> <b>Dr. Prashant Sonar,</b> <b>Queensland University of Technology, Australia</b> Title: Innovative Organic Semiconductors for Transistors, Sensing and Light Harvesting Devices		
9.40-10.20	<b>Plenary: Dr. Satoshi Watanabe, The University of Tokyo, Japan</b> Title: Accelerating Nanomaterial Simulations Using Machine Learning Techniques		<b>Plenary</b> <b>Dr. S. Balakumar,</b> <b>University of Madras.</b> Title: Multifunctional Nanostructured Hybrid Materials		
10.20-10.30 AM	TEA BREAK				
10.30-11.30 AM	KEYNOTE LECTURES (10.30-12.00 PM)				
Venue	Gallery 1 (TT028)	TT311	Ambedkar Auditorium (TT018)	TT 312	
Session Chair	Dr. Satoshi Watanabe, University of Tokyo, Japan	Dr. Geetha Manivasagam, VIT	Dr. R.Vijayaraghavan, VIT	Dr. Keiji Nagai, Tokyo Institute of Technology, Japan	
Faculty coordinator	Dr. Debasish Maji, VIT	Dr.Niroj K Sahu, VIT	Dr. Sreekanth, VIT	Dr. R. Vimala, VIT	
10.30-11.00 AM	<b>Keynote</b> <b>Dr. Debabrata Goswami, IIT Kanpur, India</b> Title: Femtosecond Laser-induced control for Quantum Information Processing	<b>Keynote</b> <b>Dr. S. Mahalakshmi, VIT Chennai</b> Title: Site engineered Multiferroic BiFeO <sub>3</sub>	<b>Keynote</b> <b>Dr. NV Ravi kumar, IIT-Madras, Chennai, India</b> Title: Microstructural design of precursor derived nanostructured ceramics towards structural and functional applications	<b>Keynote</b> <b>Dr. V. Uma, Mount Carmel College, India</b> Title: Gas sensors with different nano structured materials and its characterization	
11.00-11.30 AM	<b>Keynote</b> <b>Dr. Deepak A, Saveetha Institute of Medical and Technical Sciences, India</b> Title: Characterization and applications of Tunable graphene based composite films.	<b>Keynote</b> <b>Dr. Subhash Thota, IIT Guwahati, India</b> Title: Unusual Magnetodielectric Behaviour of Antiferromagnetic Pyrochlore Cobalt-Orthogermannate	<b>Keynote</b> <b>Dr. Ramendra Sundar Dey, INST, Mohali, India</b> Title: The role of electrode material for renewable and self-powered hybrid energy system	<b>Keynote</b> <b>Dr. Adrian Lonescu University of Cambridge</b> Title: Magnetic proximity effects in Graphene and at EuO thin films interfaces	
11.30 -12.00 PM	<b>Keynote</b> <b>Dr. Marlia Mohd Hanafiah, University of Kebangsaan, Malaysia.</b> Title: Life cycle thinking: towards sustainable nanotechnology		<b>Keynote</b> <b>Dr. Daniel Thangadurai, Sri Ramakrishna Engineering College, India</b> Title: Fluorescent capped Metal Nanoparticles for Environmental and Healthcare Applications	<b>Keynote</b> <b>Dr. Luis De Los Santos Valladares, Northeastern University, Shenyang, China.</b> Title: Ferro- and antiferromagnetic competition in thermally oxidized Ni/NiO nanopowder and granular thin films	
12.00-1.00 PM	Oral Presentation (10+2 min for each presentation)				
Venue	Gallery 1 (TT028)	TT311	Ambedkar Auditorium (TT018)	TT 312	TT 343A
Faculty coordinator	Dr. Krishnachandar, VIT	Dr. K. Umadevi, VIT	Dr.Niroj K Sahu, VIT	Dr. K. Govardhan, VIT	Mr. Syamsai, VIT
Session Evaluator	Dr. Dhritiman Gupta, VIT	Dr.S.Senthil Kumar, VIT	Dr. Arpan Kumar Nayak, VIT	Dr. Thirumanavelan Gandhi, VIT	Dr. K.R. Ethiraj, VIT
Rapporteur	Mr. G. Vasanth	Ms.Barkha	Ms.Tejaswi	Ms. Vijayakanth	Ms. Tamil Selvi
	OP61-ICNAN2019100054	OP66-ICNAN2019100223	OP71-ICNAN2019100125	OP76-ICNAN2019100629	OP81-ICNAN2019100092
	OP62-ICNAN2019100204	OP67-ICNAN2019100339	OP72-ICNAN2019100152	OP77-ICNAN2019100716	OP82-ICNAN2019100317
	OP63-ICNAN2019100278	OP68-ICNAN2019100385	OP73-ICNAN2019100376	OP78-ICNAN2019100745	OP83-ICNAN2019100348
	OP64-ICNAN2019100577	OP69-ICNAN2019100516	OP74-ICNAN2019100609	OP79-ICNAN2019100581	OP84-ICNAN2019100615
		OP70-ICNAN2019100625	OP75-ICNAN2019100677		
1.00-2.00 PM	LUNCH BREAK (Foodys)				
2.00-2.45 PM	ORAL PRESENTATIONS				
Venue	TT311		TT312		TT343A
Faculty coordinator	Dr. Krishnachandar, VIT		Dr. K. Govardhan, VIT		Mr. Syamsai, VIT
Session Evaluator	Dr. Dhritiman Gupta, VIT		Dr. Thirumanavelan Gandhi, VIT		Dr. K.R. Ethiraj, VIT
Rapporteur	Mr. G. Vasanth		Ms. Vijayakanth		Ms. Tamil Selvi
	OP86-ICNAN2019100192		OP89-ICNAN2019100038		OP92-ICNAN2019100046
	OP87-ICNAN2019100287		OP90-ICNAN2019100698		OP93-ICNAN2019100246
	OP88-ICNAN2019100536		OP91-ICNAN2019100751		OP94-ICNAN2019100498
2.45 – 3.15 PM	Transforming Academic Research into Intellectual Property Mr. M. Srinivasan, CEO, Ethna Attributes Soft Technologies (P) Ltd, Chennai (Ambedkar Auditorium TT018)				
3.15-3.45 PM	Industrial Talk: Supercapacitors Dr. Rajendra Kumar Sharma, SPEL, Pune (Ambedkar Auditorium TT018)				
3.45 - 4.00 PM	Tea Break				
4.00 PM onwards	Valedictory & Distribution of awards (Young Researcher awards) (Ambedkar Auditorium)				
5.00 PM	Distribution of Certificates				



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