

WNCST 2021 SCHEDULE

TIME (IST) GMT+5:30	WNCST 2021 SCHEDULE						
	08-03-2021 (Monday) Speakers (local time), affiliations, and Titles Day 1	09-03-2021 (Tuesday) Speakers (local time), affiliations, and Titles Day 2	10-03-2021 (Wednesday) Speakers (local time), affiliations, and Titles Day 3	11-03-2021 (Thursday) Speakers (local time), affiliations, and Titles Day 4	12-03-2021 (Friday) Speakers (local time), affiliations, and Titles Day 5	13-03-2021 (Saturday) Speakers (local time), affiliations, and Titles Day 6	
Session 1							
08:00 to 08:35 AM	S1	Dr. JOHN V. KENNEDY (3:30 PM NZDT) GNS Science, New Zealand <i>Strain engineering for next generation communication devices</i> Chair: Dr. R. KANNADASSAN D, CNR, VIT	Dr. CHENNUPATI JAGADISH A. C. (1:30 PM AEDT) Australian National University, Australia <i>Semiconductor Nanostructures for Optoelectronics Applications</i> Chair: Dr. R.Vimala, CNR, VIT	Dr. ADAM LEE (1:30 PM AEDT) RMIT University, Australia <i>Spatially orthogonal materials for catalytic cascades</i> Chair: George Jacob, CNR, VIT	Dr. PENG CAO (3:30 PM NZDT) The University of Auckland, New Zealand <i>Ta/Nb co-doped Garnet Type Hybrid Solid State Electrolyte for High Performance Lithium Metal Batteries</i> Chair: Dr. PREETAM BHARDWAJ, CNR, VIT		
08:45 to 09:20 AM	S2	Dr. YURY GOGOTSI (10:15 PM EST on 07/3/21) Drexel University, USA <i>MXenes – from Science to Technology</i> Chair: Dr. RAJA SELAPPAN, CNR, VIT	Dr. KUROSHI KALANTAR-ZADEH (2:15 PM AEDT) NUS, Singapore <i>Liquid metals: neglected reaction media for synthesizing functional materials</i> Chair: Dr. R. KANNADASSAN D, CNR, VIT	Dr. MARK M. BANASZAK HOLL (2:15 PM AEDT) Monash University, Australia <i>Robot, Engineered Nanotechnology Solutions – From Detecting SARS-CoV-2 to Waste Water Treatment</i> Chair: Dr. R. VIMALA, CNR, VIT	Dr. YUAN CHEN (2:15 PM AEDT) The University of Sydney, Australia <i>Carbon composites for one-dimensional wearable energy storage devices</i> Chair: Dr. ANAND S, CNR, VIT	Dr. PRASHANT SONAR (1:15 PM AEST) Queensland University of Technology, Australia <i>Carbon Dots From Human Hair Waste for Display, Sensing and Energy Harvesting Devices</i> Chair: Dr. PREETAM BHARDWAJ, CNR, VIT	Dr. RAJAKANNU P (12:15 PM KST) SAST, South Korea <i>1D/1D)-Based Phosphorene Materials for High Efficient OLEDs</i> Chair: Dr. KRISHNA CHANDAN N, CNR, VIT
09:30 to 10:05 AM	S3	Dr. CARLA MELDANDRI (5:00 PM NZDT) University of Otago, New Zealand <i>Tuning metal-organic framework nanocrystals using microemulsions</i> Chair: Dr. PRAGASAM V, Dean SBST, VIT	Dr. ANDREW WEE (2:00 PM SGT) NUS, Singapore <i>Freestanding 2D Materials</i> Chair: Dr. Arun Chandrasekar, SENSE, VIT	Dr. TAKAO MORI (1:00 PM JST) National Institute for Materials Science, Japan <i>Solid state conversion of waste heat to electricity: The thermoelectric material science challenge</i> Chair: George Jacob, CNR, VIT	Dr. SEERAM RAMAKRISHNA (12:00 PM SGT) NUS, Singapore <i>Future Healthcare: Intelligent Materials & Systems</i> Chair: Dr. VIJAYABAGHAVAN R, SAS, VIT	Dr. ZHENAN BAO (8:00 PM PST, 11/03/21) Stanford University, USA <i>Skin-inspired organic electronics</i> Chair: Dr. SAKTHI SWARRUP J, CNR, VIT	Dr. MURALI BANAVATH (9:30 AM IST) University of Hyderabad, India <i>Single Crystal Perovskites: A Big Wave of Optoelectronics</i> Chair: Dr. PREETAM BHARDWAJ, CNR, VIT
10:15 to 10:50 AM	S4	Dr. MADHU BHASKARAN (3:45 PM AEDT) Swinburn University, Australia <i>Oxide based conformal sensors for healthcare applications</i> Chair: Dr. R. VIMALA, CNR, VIT	Dr. ABDUL KHALIQ HASHEED (12:45 PM MYT) Karamati University, Malaysia <i>Augmented thermal conductivity using nanopolymers in PCR for the rapid detection of COVID-19</i> Chair: Dr. KRISHNAN V, Director CBSI, VIT	Dr. YUELONG LI (12:45 PM China ST) Nankai University, China <i>Efficient Solar Cells via Interfacial Engineering</i> Chair: Dr. SENTHIL KUMAR A, Director CO2, VIT	Dr. CHUYANG TANG (12:45 PM HKT) The University of Hong Kong, Hong Kong <i>Nano-enhanced membranes for clean water</i> Chair: Dr. AMITAVA MUKHERJEE, Director CNBT, VIT	Dr. YU CHAI (12:45 PM HKT) City University of Hong Kong, Hong Kong <i>Using atomic force microscopy to study soft matter at interfaces</i> Chair: Dr. SATHANARAYANAN P, CNR, VIT	Dr. WEPING WU (12:45 PM China ST) CAS Shanghai, China <i>Multifunctional Carbon Nanomaterials for Energy Applications</i> Chair: Dr. Vimala R, CNR, VIT
Session 2							
11:15 to 11:50 AM	S5	Dr. YUN LIU (4:45 PM AEDT) Australian National University, Australia <i>New strategy of materials design for photoelectrical functional materials in energy applications</i> Chair: Dr. SWATHI G, CNR, VIT	Dr. MOHAMMAD KHALID (1:45 PM MYT) Sunway University, Malaysia <i>Microwave synthesized hybrid MOX2/h-BN additive for ultralow friction nanolubricants</i> Chair: Dr. PORATHAM E, Director ARC, VIT	Dr. S. BALAKUMAR (11:15 AM IST) University of Madras, India <i>Nanostructured Bioactive Materials based composites Towards Biomedical Applications</i> Chair: Dr. R. VIMALA, CNR, VIT	Dr. GUYET VAN LE (12:45 PM VNT) Duy Tan University, Vietnam <i>Two dimensional materials as catalysts for water splitting</i> Chair: Dr. MANGAIYARAKASI R, CNR, VIT	Dr. SWAMINATHAN VISWANATHAN (1:45 PM SGT) Galaxy group, Singapore <i>Impact of nanotechnological applications for environmental remediation: Solid, liquid and gas</i> Chair: Dr. PREETAM BHARDWAJ, CNR, VIT	
12:00 to 12:35 PM	S6	Dr. HIROSHI WATANABE (2:30 PM Taipei ST) National Yang Ming Chiao Tung University, Taiwan <i>A concept of electronic sensing of virus</i> Chair: Dr. RASOOL M, Director Sponsored Research, VIT	Dr. SAMEER SAPRA (12:00 PM IST) IIT Delhi, India <i>2D MO2 based hybrid nanoheterostructures for catalytic and optoelectronic applications</i> Chair: Dr. KITTUR HARSH MALLIKARJUN, Dean SENSE	Dr. RAMACHANDRA RAO (12:00 PM IST) IIT Chennai, India <i>Quantum Materials, Nanoscience and Advances in Nanotechnology</i> Chair: Dr. KRISHNAMOORTHU C, CNR, VIT	Dr. CHACKO JACOB (12:00 PM IST) IIT, Kharagpur, India <i>Quantum Materials, Nanoscience and Advances in Nanotechnology</i> Chair: Dr. SATHANARAYANAN P, CNR, VIT	Dr. DEBASISH SARKAR (12:00 PM IST) NIT Rourkela, India <i>Tailor-made Hip Prosthesis</i> Chair: Dr. DEVENDRANATH RAMKUMAR, SMEC	
12:45 to 01:20 PM	S7	Dr. Aida Todi-Sanial (8:15 AM CEST) Université Montpellier, France <i>From materials, devices to architectures for energy efficient neuromorphic computing based on oscillatory neural networks</i> Chair: Dr. SWATHI G, CNR, VIT	Dr. DHIRENDRA BHADUR (12:45 PM IST) IIT Goa, India <i>Graphene derivatives and their composites: processing, properties and applications</i> Chair: Dr. NIROJ KUMAR SAHU, CNR, VIT	Dr. DIPANKAR BANDYOPADHYAY (12:45 PM IST) IIT Guwahati, India <i>Microdroplets and Microchannels for Unit Operations</i> Chair: Dr. SATHANARAYANAN P, CNR, VIT	Dr. NEIL ROBERTSON (7:15 AM GMT) University of Edinburgh, UK <i>Bismuth-based materials for supercapacitors and batteries</i> Chair: Dr. RAMESH KUMAR A, CNR, VIT	Dr. KAMALAKANNAN KAILASAM (12:45 PM IST) INIST Mohali, India <i>Artificial Photosynthesis: Porous Organic Polymers for simultaneous H₂ generation and biomass conversion</i> Chair: Dr. SATHANARAYANAN P, CNR, VIT	Dr. VENKATA KRISHNAN (12:45 PM IST) IIT Madras, India <i>Rational Design and Development of Nanostructured Heterogeneous Catalysts for Energy and Environmental Application</i> Chair: George Jacob, CNR, VIT
Session 3							
02:30 to 03:05 PM	S8	Inauguration Chief Guest: Dr. Takaaki Kajita (4:00 PM JST) Nobel Laureate in Physics 2015 University of Tokyo, Japan	Dr. NARENDRA KURRA (2:30 PM IST) ISER, Thiruvananthapuram, India <i>Functional Transition metal carbides for energy storage applications</i> Chair: Dr. PREETAM BHARDWAJ, CNR, VIT	Dr. VINCENZO PECUNIA (10:00 AM CEST) Soochow University, China <i>Printable Nanomaterials Towards Self-Powered IoT</i> Chair: George Jacob, CNR, VIT	Dr. SUNIL BHAND (2:30 PM IST) BITS Goa, India <i>Nanoprobe integrated field portable biosensors and applications</i> Chair: Dr. Kalanathan S, CNR, VIT	Dr. PULITA SUDARSANAM (2:30 PM IST) NCL, Pune, India <i>Shape-controlled nanosized materials for heterogeneous catalysis</i> Chair: Dr. R. Vimala, CNR, VIT	Dr. SAMBANDAM ANANDAN (2:30 PM IST) NIT Trichy, India <i>Facile Synthesis of Metal-Oxide Nanoparticles Intercalated Unipped Multi-Walled Carbon Nanotubes Via Ultrasound-Assisted Route for Symmetric Supercapacitor Devices</i> Chair: Dr. PALLA PENCHALAIHA, CNR, VIT
03:15 to 03:50 PM	S9	Inaugural lecture Dr. Takaaki Kajita (6:50 PM JST) Nobel Laureate in Physics 2015 University of Tokyo, Japan <i>Exploring the Universe with gravitational waves</i> Chair: Dr. A Nimata Grace, CNR, VIT	Dr. SANTANU DAS (3:15 PM IST) IIT BHU, India <i>Emerging functional nanomaterials for electronic, optoelectronic and energy devices</i> Chair: Dr. Ramanujam, Director CIMR, VIT	Dr. LORENZO FAVESI (10:45 AM CEST) University of Trento, Italy <i>The past, the present and the future of silicon photonics: a personal view point</i> Chair: Dr. PALLA PENCHALAIHA, CNR, VIT	Dr. ARBEN MERKOCI (10:45 AM CEST) Institut Català de Nanotecnologia i Nanoelectrònica, Spain <i>Nanobiosensors for diagnostics</i> Chair: Dr. Kalanathan S, CNR, VIT	Dr. VIVEK POLSHETTIWAR (3:15 PM IST) TIFR Mumbai, India <i>Nanocatalysts to Capture and Convert CO₂ to Fuel</i> Chair: Dr. ASHUTOSH MAHAJAN, CNR, VIT	Dr. NARAYANAN T. N. (3:15 PM IST) IIT Madras, India <i>Role of Electrode Electrolyte Interface Engineering in Electrodes</i> Chair: Dr. GOVARDHAN K, CNR, VIT
04:00 to 04:35 PM	S10	Dr. RESHEF TENNE (12:30 PM Israel ST) Weizmann Institute, Israel <i>Why do nanocrystals of 2D materials form nanotubes and why is it important?</i> Chair: Dr. EHEL VIZIR E, Director CFMS, VIT	Dr. SURESH C PILLAI (10:30 AM GMT) Institute of Technology Sligo, Ireland <i>Semiconductor Nanomaterials for Photocatalytic Applications</i> Chair: Dr. RAJA SELAPPAN, CNR, VIT	Dr. R. JAYAVEL (4:00 PM IST) Anna University, India <i>Two Dimensional Nanostructures for Electrochemical and Bio Sensor Applications</i> Chair: Dr. KRISHNA CHANDAN N, CNR, VIT	Dr. VINODKUMAR ETACHERI (11:30 AM CEST) IMEDEA-Materials Institute, Spain <i>Graphene based nano-electro-mechanical sensors</i> Chair: Dr. VELMURUGAN V, CNR, VIT	Dr. ABINASH TRIPATHY (11:30 AM CEST) ETH Zurich, Switzerland <i>Environmental Friendly and Scalable Fabrication of Antibacterial ZnO Nanoparticle Surfaces</i> Chair: Dr. BRUNO D'AGUANNO, CNR, VIT	
04:45 to 05:20 PM	S11	Dr. ADMAN MEMONIC (11:15 AM GMT) University College London, UK <i>Memristors – from Memory to the Future of the Energy Efficient and Brain-Inspired Computing</i> Chair: Dr. SAKTHI SWARRUP J, CNR, VIT	Dr. ROGER C. HORNS (12:15 PM CEST) IFPMA - CHRISLUPPA, France <i>Large scale organic photovoltaics - experiences from small community installations</i> Chair: Dr. VELMURUGAN V, CNR, VIT	Dr. DAVID JENKINS (11:15 AM GMT) Plymouth University, UK <i>Graphene based biosensors</i> Chair: Dr. GEETHA MANIVASAGAM, Director CBCM, VIT	Dr. MADASAMY THANGAMUTHU (11:15 AM GMT) University of Malakand, UK <i>Solar fuel synthesis for sustainable future</i> Chair: Dr. ASHUTOSH MAHAJAN, CNR, VIT	Dr. ARAVIND VIJAYABAGHAVAN (11:15 AM GMT) University of Manchester, UK <i>Graphene based nano-electro-mechanical sensors</i> Chair: Dr. MANGAIYARAKASI R, CNR, VIT	Dr. ARITHA GHOSH (11:15 AM GMT) University of Exeter, UK <i>Nano material/coating as self-cleaning coating for PV application</i> Chair: Dr. BRUNO D'AGUANNO, CNR, VIT
05:30 to 06:05 PM	S12	Dr. ROHIT JOHN (1:00 PM CEST) ETH Zurich, Switzerland <i>Novel computing substrates for neuromorphic electronics</i> Chair: Dr. SAKTHI SWARRUP J, CNR, VIT	Dr. ILIA VALOV (1:00 PM CEST) Forschungszentrum Jülich, Germany <i>Materials and nanonic processes for controlled memristive and neuromorphic functionalities</i> Chair: Dr. VELMURUGAN V, CNR, VIT	Dr. SUDHAGAR PITCHAIMUTHU (12:00 PM GMT) Swissens University, UK <i>Current Practices in Photocatalytic Pharmaceutical Water Pollutants Treatment: Is it safe and effective?</i> Chair: Dr. Ethiraj K. S. SAS, VIT	Dr. MARC-OLIVIER COPPENS (12:00 PM GMT) University College London, UK <i>A systematic, scalable, nature-inspired design methodology for functional nanomaterials</i> Chair: Dr. PALLA PENCHALAIHA, CNR, VIT	Dr. NANASHEH D. THORAT (12:00 PM GMT) University of Oxford, UK <i>Magnetic and light activated dual modal cancer therapy using metal decorated magnetic nanostructures</i> Chair: Dr. NIROJ KUMAR SAHU, CNR, VIT	
Session 4							
06:45 to 07:20 PM	S13	Dr. MOHAMMAD KHAIJA NAZEERUDDIN (2:15 PM CEST) EPFL, Switzerland <i>Perovskite Solar Cells: A New Paradigm in the Energy Sector</i> Chair: Dr. RAJA SELAPPAN, CNR, VIT	Dr. HARRY E. RUDA (8:15 AM EST) University of Toronto, Canada <i>Prospects for Nanowire Optoelectronics and Sensing</i> Chair: Dr. VASUDEVAN R, Dean SMEC, VIT	Dr. M. V. Reddy (8:15 AM EST) Institute of Research in Physics-Quebec, Canada <i>Novel nanomaterials for metal (LiNa, K) ion batteries</i> Chair: Dr. ANAND S, CNR, VIT	Dr. JAYAN THOMAS (8:15 AM EST) University of Central Florida, USA <i>Design principles of asymmetric supercapacitor</i> Chair: Dr. ANAND S, CNR, VIT	Dr. GILBERTO MALIA (9:15 AM BrazilST) UFMS, Brazil <i>Electrocatalysts applied toward hydrogen peroxide production</i> Chair: Dr. KANNADASSAN D, CNR, VIT	Dr. TALITA MAZON (9:15 AM BrazilST) CIT, Brazil <i>Development of fast and accurate electrochemical tests for early diagnosis of COVID-19</i> Chair: Dr. PREETAM BHARDWAJ, CNR, VIT
07:30 to 08:05 PM	S14	Dr. JEON WOONG KANG (9:00 AM EST) Massachusetts Institute of Technology, USA <i>Noninvasive glucose monitoring using NIR Raman spectroscopy</i> Chair: Dr. RAJA SELAPPAN, CNR, VIT	Dr. JUDY Y. CHIA (9:00 AM EST) Yale University, USA <i>Phase Transformations of Nanoscale Systems Using In Situ TEM</i> Chair: Dr. KRISHNA CHANDAN N, CNR, VIT	Dr. DEEP JARJWALA (9:00 AM EST) University of Pennsylvania, USA <i>Low-dimensional Heterostructures for Advanced Logic, Memory and Photonics</i> Chair: Dr. PALLA PENCHALAIHA, CNR, VIT	Dr. ROHIT N. KARNIK (9:00 AM EST) Massachusetts Institute of Technology, USA <i>Nanofluidic Transport across Nonporous Atomically Thin Graphene and its Development as a Next-Generation Membrane</i> Chair: Dr. PARTHA SHARATH MALLICK, Director RAAC, VIT	Dr. NAVID BIZMARK (9:00 AM EST) Princeton University, USA <i>Dynamics of microplastic particle deposition and erosion in aquifers and soils</i> Chair: Dr. CHANDRA SEKARAN N, CNBT, VIT	Dr. MAXIM SCHERBAKOV (9:00 AM EST) Cornell University, USA <i>Spatiotemporal metasurfaces: from photon acceleration to dynamic imaging</i> Chair: Dr. GOVARDHAN K, CNR, VIT
08:15 to 08:50 PM	S15	Dr. SVETLANA BORISKINA (9:45 AM EST) Massachusetts Institute of Technology, USA <i>Meeting - and preventing - new challenges in bio(chem)ical sensing</i> Chair: Dr. R. VIMALA, CNR, VIT	Dr. SAIKAT TALAPATRA (8:45 AM CST) Southern Illinois University, USA <i>Nanoscale Materials and Structures: A Perspective on Future Applications in Energy, Environment & Electronics</i> Chair: Dr. ANAND S, CNR, VIT	Dr. RAVINDRA PANDEY (9:45 AM EST) Michigan Technological University, USA <i>Interface driven properties of 2D materials</i> Chair: Dr. ASHUTOSH MAHAJAN, CNR, VIT	Dr. POONAM SINGH (7:45 AM MST) Arizona State University, USA <i>High resolution TEM study on electrochemically cycled silver nanoparticle films</i> Chair: Dr. NIROJ KUMAR SAHU, CNR, VIT	Dr. ANIRUDHA V. SUMANT (8:45 AM CST) Argonne National Laboratory, USA <i>Graphene based nano-electro-mechanical sensors</i> Chair: George Jacob, CNR, VIT	Dr. JIAXING HUANG (8:45 AM CST) Northwestern University, USA <i>Soft Carbon Sheets: Some New Insights into an Old Material</i> Chair: Dr. BRUNO D'AGUANNO, CNR, VIT
09:00 to 09:35 PM	S16	Dr. GEORGE MALLIARAS (03:30 PM GMT) University of Cambridge, UK <i>Electronics on the Brain</i> Chair: George Jacob, CNR, VIT	Dr. KANNAN A. M. (8:30 AM MST) Arizona State University, USA <i>Enhancing interfacial charge transfer in WO₃/BiVO₄ photoanode heterojunction for photoelectrochemical water splitting</i> Chair: Dr. RAJA SELAPPAN, CNR, VIT	Dr. WEI GAO (7:30 AM PST) California Institute of Technology, USA <i>Skin-interfaced Wearable Sweat Biosensors</i> Chair: Dr. R. Vimala, CNR, VIT	Dr. PAUL WESS (7:30 AM PST) University of California, Los Angeles, USA <i>Atomically Precise Chemical, Physical, Electronic, and Spin Contacts</i> Chair: Dr. RAJA SELAPPAN, CNR, VIT	Dr. SHIRLEY HENG Y. (7:30 AM PST) University of California, San Diego, USA <i>From Atom to System, Enabling the Tera-Scale Energy Transition</i> Chair: Dr. SWATHI G, CNR, VIT	Dr. KASINATHAN KAVIYARASI (5:30 PM SAST) University of South Africa, South Africa <i>Co₂ modified PIGE electrode for photoelectrochemical behaviour of energy application</i> Chair: Dr. ASHUTOSH MAHAJAN, CNR, VIT