

Faculty of Engineering & Technology Department of Physics

Organizes

TWO WEEK INTERNATIONAL FACULTY DEVELOPMENT PROGRAM ON ADVANCED COMPUTATIONAL AND EXPERIMENTAL RESEARCH IN PHYSICS-2021

 **13.09.21 - 25.09.21**

Tune to Hear Lectures from Eminent Speakers across the World

13-09-2021 @ 10:00 AM - 11:00 AM IST

Chief Guest & Keynote address

Plasma processing as a novel tool for high-performance electrode material synthesis for energy storage and conversion devices

Dr. Rajdeep Singh Rawat

Professor & Head
Department of Natural Sciences &
Science Education,
Nanyang Technological University,
Singapore.



Topics to be covered

- **Materials Science** – *Metamaterials | Nanomaterials | Functional Materials | Thermoelectric Materials*
- **Spectroscopy** – *Artificial Intelligence assisted Infrared Spectromicroscopy*
- **Nonlinear Dynamics** - *Coupled Optical Resonators*
- **Laser Technology** - *Ultrafast Optics | Laser-silicon Interaction*
- **Density Functional Theory | Forensic Science**
- **Energy** – *Li ion Batteries for Electric Vehicle*
- **Teaching Pedagogy** - *Research and Technology | Virtual Laboratory*
- **Yoga** - *Just Breathe to attain Inner Serenity: Yoga is a Tool*



Who can attend? Faculty | Research Associates

No Registration Fees

Registration link: <https://tinyurl.com/srmphyfdp21>

Website: <https://sites.google.com/view/srmphyfdp21/home>

e-certificate will be provided to the participants who attend all the sessions

Convenor

Dr. L. Sudha

Professor & Head

Coordinators

Dr. K. Subramanian, Assistant Professor (Sr.G)

Dr. T. Beena, Assistant Professor (S.G)

Dr. V. Jayalakshmi, Assistant Professor (Sr.G)



FOR ADMISSION



Contact: +91 96772 65859 | 94452 98246 | 97907 38299

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Ramapuram Campus, Chennai, Tamilnadu, India.

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DAY - 2 (14.09.2021)

Dr. S. Sudhakar

Principal Scientist, Electrochemical Power Sources Division, CSIR-Central Electrochemical Research Institute, Karaikudi, India.

Topic: Lithium ion battery for EV application

Time : 6:30PM – 7:30PM IST



DAY - 3 (15.09.2021)

Dr. P. H. Zwart

Staff Scientist
Molecular Biophysics and Integrated Bio imaging & Advanced Mathematics for Energy Research Applications, Lawrence Berkeley National Laboratories, Berkeley, USA.

Topic: AI-assisted High-throughput Infrared Spectromicroscopy

Time : 10:00 AM – 11:00 AM IST



DAY - 3 (15.09.2021)

Dr. Alessandro Alberucci

Post-doc Researcher
Friedrich-Schiller-Universitat Jena, Germany.

Topic: Frontiers in Ultrafast Optics

Time : 2:00 PM – 3:00 PM IST



DAY - 4 (16.09.2021)

Dr. Maxime Chambonneau

Post-doc Researcher
Friedrich-Schiller-Universitat Jena, Germany.

Topic: In-volume Laser-silicon Interaction

Time : 2:00 PM – 3:00 PM IST



DAY - 5 (17.09.2021)

Dr. Neil Broderick

Professor, Department of Physics,
The University of Auckland, New Zealand.

Topic: Nonlinear Dynamics in Coupled Optical Resonators

Time : 11:00 AM – 12:00 PM IST



DAY - 6 (18.09.2021)

Dr. Ashish Badiye

Head of the Department & Assistant Professor
Department of Forensic Science,
Government Institute of Forensic Science,
Nagpur, Maharashtra, India.

**Topic: "Ques. : We can all see, but can you observe?"
Ans. : - Forensic Science"**

Time : 6:00 PM – 7:00 PM IST



DAY - 7 (19.09.2021)

Dr. B. Archana

Assistant Professor,
Department of General Pathology,
Sri Ramachandra Institute of Higher
Education & Research, Chennai, India.

**Topic: Just Breathe to attain Inner
Serenity: Yoga is a Tool**

Time : 11:00 AM – 12:00 PM IST



DAY - 8 (20.09.2021)

Dr. M.S. Mani Rajan

Assistant Professor,
Department of Physics,
University College of Engineering,
Anna University, Ramanathapuram, India.

**Topic: Photonic Crystal Fiber for
Bio-Sensing Applications**

Time : 2:00 PM – 3:00 PM IST

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DAY - 8 (20.09.2021)

Dr. Pawel Hawrylak

Professor,
Department of Physics,
University of Ottawa, Canada.

Topic: Designing Materials at the Nanoscale

Time : 7:00 PM – 8:00 PM IST



DAY - 9 (21.09.2021)

Dr. David J. Singh

Professor
Department of Physics and Astronomy,
University of Missouri, Columbia, USA.

Topic: Understanding Thermoelectric and their Performance

Time : 6:30 PM – 7:30 PM IST



DAY - 10 (22.09.2021)

Dr. Dhayanatha Prabu Jaihindh

Postdoctoral Fellow
Department of Chemical Engineering,
National Taiwan University, Taiwan.

Topic: Deep Eutectic Solvents (DESs) in Functional Materials Development

Time : 2:00 PM – 3:00 PM IST



DAY - 10 (22.09.2021)

Dr. Prafulla Kumar Jha

Professor,
Department of Physics,
The Maharaja Sayajirao University of Baroda,
Vadodara, Gujarat, India.

Topic: Fundamentals of Density Functional theory

Time : 6:30 PM – 7:30 PM IST



DAY - 11 (23.09.2021)

Dr. K. Subramanian

Assistant Professor (Sr.G)
Department of Physics,
SRM Institute of Science and Technology,
Ramapuram Campus, Chennai, Tamilnadu, India.

Topic: Significance of Virtual Laboratory: An Overview

Time : 2:00 PM – 3:00 PM IST



DAY - 12 (24.09.2021)

Dr. K. V. Sreekanth

Research Scientist
Institute of Materials Research and
Engineering (IMRE), A*STAR, Singapore.

Topic: Electrically Tunable Nanophotonics Enabled by Chalcogenide Phase Change Materials

Time : 11:00 AM – 12:00 PM IST



DAY - 13 (25.09.2021)

Dr. C. M. Raghavan

Marie S. Curie Research Fellow,
Aston Institute of Photonic Technologies,
Aston University, Birmingham, United Kingdom.

Topic: 2D Materials for Optoelectronic Applications

Time : 11:00 AM – 12:00 PM IST



DAY - 13 (25.09.2021)

Dr. Ervina Efzan Binti Mhd Noor

Director, Industrial Collaborations And
Engagement Centre/Associate Professor,
Faculty of Engineering and Technology,
Multimedia University, Malaysia.

Topic: Solder: Recent Research and Technology
Time : 12:00 PM – 1:00 PM IST