

## The Erudite Scholar-in-Residence Programme

Department of Physics, Sacred Heart College, Chalakudy collaborated with The Department of Physics, Mar Thoma College, Tiruvalla, Mar Ivanios College, Thiruvananthapuram, Bishop Moore College Mavelikara, St. Teresa's college Ernakulam to organize the Kerala State Higher education council's Erudite Scholar-in-Residence Programme during 22-27, February, 2021. The event enables university students, Researchers and teachers to interact with scholars of worldwide recognition. The webinar was led by eminent scholars Dr. Raju V Ramanujam, Professor, Materials Science Engineering, Nanyang Technological University, Singapore and Dr. Rahul R Nair, Professor, Material Physics, University of Manchester, UK. Dr. Nijo Varghese was the local organizer from the college's side.

### Brochure indicating the nature of collaboration

**The Erudite Programme**

Kerala State Higher Education Council's ERUDITE Scholar-in-Residence programme enables the university students, researchers and teachers of universities and colleges to interact with Nobel Laureates and other scholars of worldwide recognition. ERUDITE scholars may give campus-wide and community lectures, run workshops or seminars on specific themes, conduct collaborative research with teachers or students, help to initiate international programmes and contribute to curriculum development.

**COLLABORATING INSTITUTIONS**

- Department of Physics, CUSAT, Kochi
- School of Pure & Applied Physics and International & Inter University Centre for Nanoscience & Nanotechnology, Mahatma Gandhi University, Kottayam
- Bishop Moore College, Mavelikkara
- St. Joseph's College, Devagiri, Calicut
- Farook College, Kozhikode
- Mar Ivanios College, Thiruvananthapuram
- St. Theresas College, Ernakulam
- S.H. College, Chalakudy
- Fatima Mata National College, Kollam

**22nd, 23rd & 24th February 2021, at 10:00 am**  
Prof. Raju V Ramanujan, NTU, Singapore

**Abstract**  
Magnetic materials for a sustainable planet

Sustainability, especially higher energy efficiency, is of high interest throughout the world. Hence, we developed novel high performance magnetic fluid-based heat pipes for magnetic cooling. We also used combinatorial synthesis and AI/Machine Learning to develop next generation magnetic materials by laser engineered net shaping (LENS) additive manufacturing techniques. Our recent work on energy efficient magnetic curing of adhesives will also be discussed.

**25th, 26th & 27th February 2021, at 3:00 pm**  
Prof. Rahul R Nair, Manchester University, UK

**Abstract**  
Graphene@Manchester- Beyond the sticky tape

Graphene is a wonder material with many superlatives to its name. It is the thinnest known material in the universe and the strongest ever measured. Graphene can sustain current densities six orders of magnitude higher than that of copper, shows record thermal conductivity and stiffness, and is impermeable to gases. All of its exceptional properties have opened up new avenues for the use of graphene in several applications. The lecture will present the recent trends in graphene research and applications, especially the use of graphene in separation and filtration technologies.

**Advisory Committee**

- Rt. Rev. Dr. Euyakim Mar Coorilos Episcopa, Manager
- Prof. Dr. M. R. Anantharaman, UGC-BSR Professor, CUSAT, Kochi
- Dr. Samuel Mathew (Former HOD), Principal, KVVS College, Adoor
- Dr. Christie Thomas Cherian Christ University, Bangalore
- Dr. Senoy Thomas, Department of Physics, CUSAT, Kochi

**Organizing Committee**

- Dr. Varughese Mathew, Principal
- Prof. Santhosh Jacob, HOD
- Dr. Angel Susan Cherian
- Dr. Noble P Abraham
- Dr. I John Berlin
- Dr. Arun Vinod
- Ms. Achamma Mathew Malayil
- Ms. Anuja Mariam Kurian
- Ms. Neethu Merin Alex

**CONTACT US**

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Coordinator  
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Email: angelsusan@gmail.com

**Link for free registration**  
<https://forms.gle/i6VCpKkPpoe7TGrq5>  
e-certificates will be issued to all participants

The Brochure showing the rof faculty from SH College:

DEPARTMENT OF PHYSICS,  
MARTHOMA COLLEGE, TIRUVALLA



# ERUDITE SCHOLAR IN RESIDENCE PROGRAMME

22ND TO 27TH FEBRUARY, 2021

SPONSORED BY  
KERALA STATE HIGHER EDUCATION COUNCIL



Prof. Dr. Raju V Ramanujan  
Nanyang Technological University, Singapore

## PROGRAMME SCHEDULE

### FEBRUARY 24

**10:00 - WELCOME SPEECH**

Dr. RAJESH SURENDRAN,  
MAR IVANIOS COLLEGE, TIRUVANANTHAPURAM

**10:05 - MODERATOR**

Dr.M.R. ANANTHARAMAN,  
UGC-BSR PROFESSOR, CUSAT

**10:10 - ERUDITE LECTURE 3**

Prof. RAJU V RAMANUJAN  
NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE  
*Triggered healing magnet-polymer composites*

**10:55 - INTERACTIVE SESSION & OPEN DISCUSSIONS**

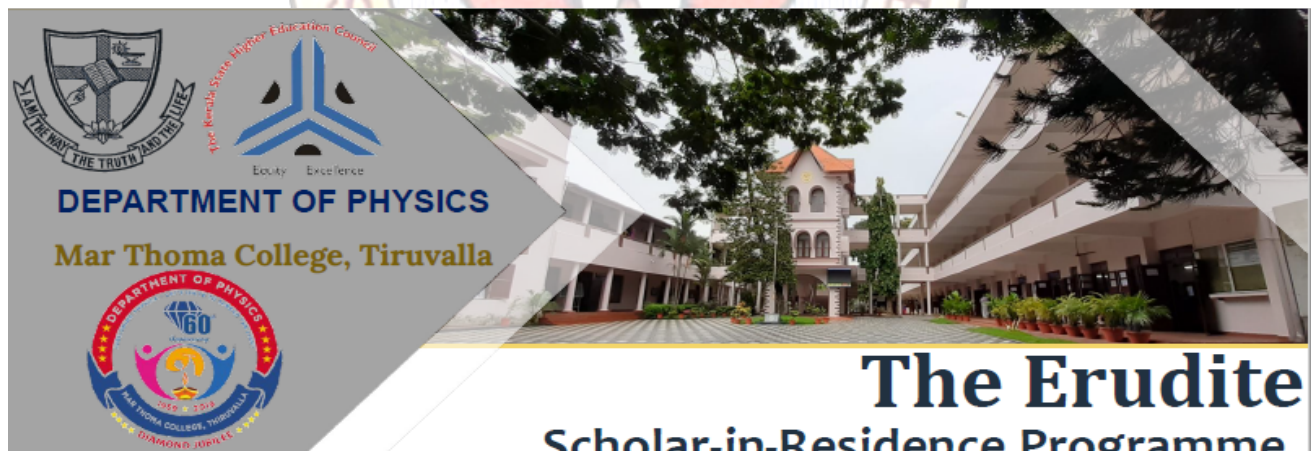
**11:30 - VOTE OF THANKS**

Dr. NIJO VARGHESE  
SACRED HEART COLLEGE, CHALAKUDY

## Arrangement done in the college for attending the program



A sample of the certificate issued to the participants  
(All the certificates are with us)



## The Erudite Scholar-in-Residence Programme

### Certificate

This is to certify that **BETTY MARIYA VARGHESE, M.sc PHYSICS, SACRED HEART COLLEGE** has attended The Erudite Scholar-in-Residence Programme organized by the Department of Physics, Mar Thoma College, Tiruvalla, in association with Kerala State Higher Education Council during 22-27, February, 2021.

Dr. Varughese Mathew  
Principal

Prof. Santhosh Jacob  
Head of the Department

Dr. Angel Susan Cherian  
Coordinator