

SCIENCE ACADEMIES' EDUCATION PROGRAMME

JOINT SCIENCE EDUCATION PANEL

Indian Academy of Sciences

Mukunda, N
(Chairman)

Ramaraj, R

Samanta, A

Arunan, E

Murthy, MRN

Saidapur, SK

Chattopadhyay,
Dhrubajyoti

Lakshmanan, M

Raghunathan, VA

Dhar, Deepak

Mandal, Nibir

Vinayachandran, PN

Sankaran, P

Rangarajan, G

Indian National Science Academy

Dogra, SK

Muralidhar, K

Gupta, Alok K

Passi, IBS

The National Academy of Sciences, India

Dimri, Vijay Prasad

Gupta, Santosh Kumar

Khurana, Paramjit

Misra, Gadadhar

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Madhavan, G
Coordinator

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sep@ias.ernet.in

SEP/LW-JAN-10/13-14

9 December 2013

Ms K.R. Tresa
Associate Professor and Head
Department of Physics
St. Joseph's College
Irinjalakuda 680 121

Sub: Lecture Workshop on "Recent Advances in High Energy Physics" at St. Joseph's College, Irinjalakuda from 28 to 29 January 2014

Dear Ms Tresa,

This has reference to your email dated 6 December 2013 forwarding the proposal and budget for organizing a two-day Lecture Workshop in your institution. The Academy will be happy to sponsor and support the Lecture Workshop under the auspices of the Joint Science Education Panel of the three Academies. We note that Professor M.V.N. Murthy will be the Workshop Convener and that Ms Mary Gisby Poulouse will be the Workshop Co-ordinator.

- (a) Your budget of Rs 76,000/- for 150 participants (exclusive of travel, boarding/lodging and local transport for Resource Persons which will be in actuals) has been approved by the Science Panel. Please note that the amount for boarding/lodging and local transport for Resource Persons should not exceed Rs 30,000/- as mentioned by you in the budget. Any difference in expenditure should be met by your institution.
- (b) We have noted the tentative list of five Resource Persons including the Convener for your Lecture Workshop. For a two-day Lecture Workshop, the number of Resource Persons should be ideally 4 with each of them giving more than one lecture. As soon as the list is finalized send it to us along with topics of lectures.
- (c) The travel expenses for Resource Persons will be according to actuals. We hope that there will be no air travel for Resource Persons from Chennai. In case of Professor Kajari Majumdar (TIFR, Mumbai), the Academy can help in booking air tickets once we have the itinerary.
- (d) Lecture Workshops are sponsored and supported by the three National Science Academies – IASc, INSA and NASI. The names of INDIAN ACADEMY OF SCIENCES (BANGALORE), INDIAN NATIONAL SCIENCE ACADEMY (NEW DELHI) and THE NATIONAL ACADEMY OF SCIENCES, INDIA (ALLAHABAD) should therefore be mentioned in all publicity material such as programme sheet, invitation cards, etc.
- (e) The Workshop should be called "Science Academies' Lecture Workshop on Recent Advances in High Energy Physics".



Indian Academy
of Sciences,
Bangalore



Indian National
Science Academy,
New Delhi



The National Academy
of Sciences, India
Allahabad

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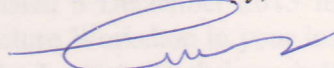
(f) Please send 4-5 copies of the printed programme cards once it is printed.

(g) We can advance money by electronic transfer on a specific request from the Workshop Coordinator. She has to send us the following bank details: 1. Account No; 2. Name of the Account Holder; 3. Name of the Bank; 4. Name of the Branch; 5. IFSc code for non-SBI accounts

You can go ahead with organizing the Workshop in consultation with Professor Murthy and ask Ms Mary Gisby Poulouse to keep in touch with us about the progress. We will also need her mobile number and email id for future communication.

With regards,

Yours sincerely,



G. Madhavan

Co-ordinator, Science Education Panel



Indian Academy
of Sciences,
Bangalore



Indian National
Science Academy,
New Delhi



The National Academy
of Sciences, India
Allahabad

Report

'Science Academies' Lecture workshop on High Energy Physics'

28th & 29th January, 2014 at St. Joseph's College, Irinjalakuda

The **Science Academies' Lecture Workshop on High Energy Physics** was conducted on 28th and 29th, January 2014 at St. Joseph's College, Irinjalakuda, Thrissur, Kerala. The Inaugural function was arranged at 10.00 am in the College Mother Mariam Thresia Hall on 28th January 2014. Dr. M. V. N. Murthy, Professor at Institute of Mathematical Sciences Chennai, formally inaugurated the Lecture workshop. The College Principal Dr. Sr. Annie Kuriakose presided, Ms Tresa K. R., the Head of Department of Physics offered welcome and Ms Mary Gisby Poulouse, Local Coordinator expressed the vote of thanks. Dr. Sr. Rose Bastin, Vice Principal of the College, offered felicitations.

The first technical session from 10.45 am to 1.15 pm was handled by Dr. G. Rajasekaran (IMSc Chennai) on the topic '*Standard model, Higgs Boson and what Next?*' and a comprehensive overview of standard model with historical introduction was given.

After the Lunch break from 12.30 pm to 1.30 pm, Dr. V. Ravindran (IMSc Chennai) engaged the session on '*Physics of Strong Interaction*' with an overview of Particle physics with emphasis on Higgs mechanism and the origin of mass. The session was followed by Dr. Kajari Mazumdar (TIFR Mumbai) and she spoke on the '*Higgs discovery at LHC*' and the main detectors Atlas and CMS. The speakers engaged the students in interactions after both the sessions.

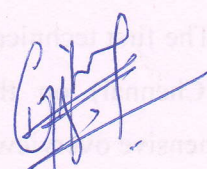
The Second day commenced from 9.30 am with Dr. G. Rajasekaran (IMSc Chennai). He gave an introduction to '*Neutrinos*'. After the tea break at 11.00 am, Dr. Indumathi (IMSc Chennai) spoke on the topic '*Neutrino Oscillations*' and gave an introduction to INO. Ms. Lakshmi, a graduate student at IMSc and associated with INO, spoke to the students for a

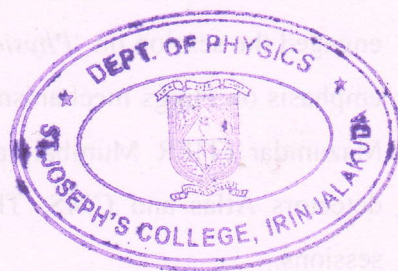
few minutes about what it is to do research in High Energy Physics. After the lunch break, the afternoon sessions were effectively taken up by Dr. M V N Murthy's talk based on the '*Mysterious Dark Matter*'. The valedictory function was held at 3.00 PM.

All the sessions of the two day Lecture Workshop were effectively utilized by the delegates from four neighboring colleges.

Around 180 delegates including PG Students, research scholars and young faculty from neighboring Colleges participated. The delegates had very high opinion regarding all sessions and expressed that such programmes ought to be organized frequently in the Colleges.

The Department of Physics, St. Joseph's College Irinjalakuda gratefully acknowledges the all-round support extended by the Science Academies for making the Lecture Workshop most effective.


Mary Gisby Poulose
Coordinator



Venue

St. Joseph's College Irinjalakuda

The Lecture Workshop will be held at St. Joseph's College, Irinjalakuda, a town west of NH 47 between Thrissur and Chalakkudy. It is 10 kms from Irinjalakuda Railway Station and 20 kms from Thrissur Railway Station and is connected to the town by bus and other modes of transport. Kochi international airport is only 40 kms away.

Invitation

The Department of Physics of St. Joseph's College Irinjalakuda, under the auspices of the joint council of Indian Science Academies, is organizing a Lecture Workshop on 'Recent Advances in High Energy Physics' during 28th and 29th January 2014. Eminent resource persons in the subject will deliver the lectures. We solicit and expect your valued presence during the workshop.

With Warm Regards,

Dr. Sr. Annie Kuriakose CHF
Principal, St. Joseph's College

Ms. Tresa K.R.
Head of Department of Physics
St. Joseph's College

PROGRAMME SCHEDULE

Day 1: 28th January 2014

- 10.00 am : Inauguration
10.45 am : Session 1
Dr. G. Rajasekaran
'Standard Model, Higgs Boson and What Next?'
- 12.30 pm : Lunch
1.30 pm : Session 2
Dr. V Ravindran
'Physics of Strong Interaction'
- 3.00 pm : Session 3
Dr. Kajari Majumdar
'LHC: our universe is yours!'

Day 2: 29th January 2014

- 9.30 am : Session 4
Dr. D. Indumathi
'Elusive Neutrinos'
- 11.00 am : Session 5
Dr. M V N Murthy
'The Mysterious Dark Matter!'
- 12.30 pm : Lunch
1.30 pm : Session 6
Dr. G. Rajasekaran
'Neutrinos and the India-based Neutrino Observatory'
- 3.00 pm : Valedictory session

Science Academies' Lecture Workshop

RECENT ADVANCES IN HIGH ENERGY PHYSICS

Sponsored by



Indian Academy of Sciences
(Bangalore)



The Indian National Science Academy
(New Delhi)



The National Academy of Sciences,
India (Allahabad)

On

January 28th & 29th 2014

Organized by

Department of Physics &
Golden Jubilee Educational
Programme Committee

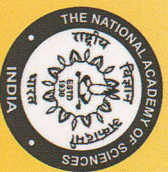
ST. JOSEPH'S COLLEGE
Irinjalakuda – 680121, Kerala
e-mail: info@stjosephs.edu.in,
www.stjosephs.edu.in



Indian Academy of Sciences (IASc), Bangalore, founded in 1934, aims at promoting the progress and upholding the cause of science in pure and applied branches. Major activities include publication of scientific journals and special volumes, organizing meetings of the Fellows and discussions on important topics, recognizing scientific talent, improvement of science education and taking up other issues of concern to the scientific community.



Indian National Science Academy (INSA), New Delhi, was established in January 1935 with the object of promoting science in India and harnessing scientific knowledge for the cause of humanity and national welfare. The Academy promotes public awareness and understanding of science. Acting as links between the scientific community and the planners, they advise the government on critical issues. They serve as forums for interaction among scientists within and outside the country.



The National Academy of Sciences India, (NASI), Allahabad, founded in 1930 is the oldest Science Academy of the country. The main objective of the Academy was to provide a national forum for the publication of research work carried out by Indian scientists and to provide opportunities for exchange of views among them.

LECTURE WORKSHOP ORGANISING COMMITTEE

Chairman

Dr. Sr. Annie Kuriakose CHF
Principal, St. Joseph's College

Convener

Dr. M V N Murthy
IMSc Chennai

Co-ordinator

Ms. Mary Gisby Poullose

Organizing Members

Ms. Tresa K. R.

Dr. Rosabella K. Puthur

Ms Namitha K. A.

Ms Anu Balan

Proforma for Confirmation of Participation

Name	:
Designation	:
Address	:
E-mail	:
Tel.No.	:
Place	:
Date	:
Signature of the Applicant	:

The Lecture workshop will cover some topics relevant to :

- ❖ Higgs Bosons
- ❖ Neutrinos
- ❖ Dark Matter

RESOURCE PERSONS

Dr. Kajari Majumdar

Tata Institute of Fundamental Research, Mumbai

Dr. V Ravindran

The Institute of Mathematical Sciences, Chennai

Dr. D. Indumathi

The Institute of Mathematical Sciences, Chennai

Dr. G. Rajasekaran

The Institute of Mathematical Sciences, Chennai

Dr. M V N Murthy

The Institute of Mathematical Sciences, Chennai

CONVENER

Dr. M V N Murthy

The Institute of Mathematical Sciences, Chennai

COORDINATOR

Ms. Mary Gisby Poullose

Assistant Professor, Department of Physics, St. Joseph's College, Irinjalakuda

Filled up proforma / email confirmation to hodphys@gmail.com may be sent to reach the coordinator on or before 28th January 2014.