

Organizing Committee

Chief Patron

Rev. Dr. Pavulraj Michael SJ
Rector, SJC

Patrons

Rev. Dr. K. Amal SJ
Secretary, SJC

Rev. Dr. M. Arockiasamy Xavier SJ
Principal, SJC

Chairman

Dr. B. Venkatraman
Director, IGCAR, Kalpakkam

Secretary

Dr. V. Subramanian
Former Head, RESD, IGCAR

Convenors

Dr. S. Chandrasekaran
Head, HISD, HSEG, IGCAR

Dr. A. Stephen
Secretary, ASC

Mrs. Jalaja Madan Mohan
Head, TCPAS, RESD, IGCAR

Dr. T. M. Sridhar
Joint - Secretary, ASC

Chief Coordinator

Dr. I. Johnson
Associate Professor & Head
Department of Physics, SJC

Coordinator

Dr. J. Charles
Associate Professor & Dean,
School of Physical Sciences, SJC

Co-Coordinators

Dr. S. Dinakaran
Asst. Professor

Dr. H. Joy Prabu
Asst. Professor

Dr. S. Lourduraj
Asst. Professor



**St. Joseph's College (Autonomous),
Tiruchirappalli
&**

**Indira Gandhi Centre for Atomic Research,
Kalpakkam
&**

**The Academy of Sciences,
Chennai**

EXECUTIVE COMMITTEE MEMBERS

Mr. A. Patrick Prabhu, Associate Professor
Dr. B. Kanickairaj, Associate Professor
Mr. S. Dominique, Assistant Professor
Dr. P. Christuraj, Associate Professor
Dr. A. Maggie Dayana, Assistant Professor
Dr. A. Leo Rajesh, Associate Professor
Dr. M. M. Armstrong Arasu, Assistant Professor
Dr. A. J. Clement Lourduraj, Assistant Professor
Dr. M. Antony Arockiaraj, Assistant Professor
Dr. R. Jerald Vijay, Assistant Professor
Dr. S. Anbarasu, Assistant Professor
Dr. A. Antony Raj, Assistant Professor
Dr. G. Samuel, Assistant Professor
Dr. P. Thomas, Assistant Professor
Dr. G. Prashap, Assistant Professor
Dr. E. Jagan Arasu, Assistant Professor
Dr. M. Lawrence, Assistant Professor
Dr. A. Balakrishna, Assistant Professor
Mr. B. Mary Dayana, Assistant Professor
Mr. G. Nivin Senetra Roy, Assistant Professor
Dr. M. Augustin, Assistant Professor
Dr. C. Jennifer Silvena, Assistant Professor
Dr. S. Rex Rosario, Assistant Professor
Dr. A. Alexandar, Assistant Professor
Mr. D. Joseph James Irudayaraj, Assistant Professor

Jointly Organizing a Two Days ANU Awareness Program 2023

on

Atomic Energy and its uses to the Humanity

30th Nov. & 1st Dec. 2023

**Venue: St. Joseph's College (Autonomous), Tiruchirappalli,
TamilNadu, India**

Preamble

The Anu awareness program is to showcase indigenous progress in nuclear technology as a part of Azadi Ka Amrit Mahotsav, which is being co-organized by the Indira Gandhi Centre for Atomic Research, St. Joseph's College (Autonomous), Tiruchirappalli, and the Academy of Sciences, Chennai, on November 30 and December 1, 2023. The program is intended to create awareness about nuclear science and technology and highlight the activities of the Department of Atomic Energy (DAE) among the youth, especially in the rural areas of all districts in Tamil Nadu.

The objective of the program is threefold:

- (i) The progress in nuclear science and technology in India, including nuclear power and societal application of ionizing radiation
- (ii) To create interest among the youth in science subjects and to explore the opportunities at DAE
- (iii) Dispelling myths on nuclear energy.

The awareness program will be a two-day event comprising lectures, quiz competitions, creative writing competitions, conceptual present actions, and exhibitions. It showcases nuclear reactor models and the application of ionizing radiation in medical, industrial, and agricultural fields.

About IGCAR

Indira Gandhi Centre for Atomic Research [IGCAR], the second largest establishment of the Department of Atomic Energy next to Bhabha Atomic Research Centre, was set up at Kalpakkam, in 1971 with the main objective of conducting broad based multidisciplinary programme of scientific research and advanced Engineering, directed towards the development of sodium cooled Fast Breeder Reactor [FBR] technology, in India. This is part of the second stage of Indian Atomic Energy Programme, which is aimed at preparing the country for utilization of the extensive Thorium reserves and providing means to meet the large demands of electrical energy in 21st century. In meeting the objective, a modest beginning was made by constructing sodium cooled Fast Breeder Test Reactor [FBTR], with a nominal power of 40 MWt, based on the French Reactor, RAPSODIE. The reactor attained its first criticality on 18th Oct, 1985 and has been in operation at its maximum attainable power level of 10.5 MWe with a small core. It is the first of its kind in the world to use Plutonium Uranium mixed carbide as a driver fuel. Over the years, the centre has established comprehensive R & D facilities covering the entire spectrum of FBR technology related to Sodium Technology, Reactor Engineering, Reactor Physics, Metallurgy and Materials, Chemistry of Fuels and its materials, Fuel Reprocessing, Reactor Safety, Control and Instrumentation, Computer Applications etc., and has developed a strong base in a variety of disciplines related to this advanced technology. With the experience and expertise gained by the successful operation of FBTR, the Centre has embarked upon the design and construction of 500 MWe, Prototype Fast Breeder Reactor.



A 30 Kwt, U233 fueled mini reactor [KAMINI] has been made operational for neutron radiography, neutron activation analysis etc., IGCAR utilizes its expertise and resources in enhancing its standing as a leading Centre for research in various branches of basic, applied and engineering sciences that have a bearing on Nuclear Technology like Structural Mechanics, Heat and Mass Transfer, Material Science, Fabrication Processes, Non-Destructive Testing, Chemical sensors, High temperature thermodynamics, Radiation Physics, Computer science etc.,

About the Academy of Sciences (ASC)

The Academy of Sciences, Chennai, was formerly known as the Tamil Nadu Academy of Sciences since 1976. It reviews periodically the education, research, development, and application in the various branches of science in our state and honours the scientists with awards. It supports and recommends grants for organization of special courses that have relevance to the needs of the students. The Academy of Sciences Chennai is conducting the Summer Training Program (STP) in Physics, Chemistry, Biology and Mathematics every year for PG students for 3 weeks. The Academy organizes or helps to organize, national and international levels seminars, workshops, and conferences at the state. Many Research institutes and Universities in Tamilnadu are the Institutional members of the Academy.

About the Institution

St. Joseph's is an autonomous college of the Bharathidasan University, Tiruchirappalli, located in the central part of Tamil Nadu, South India. It was established in 1844 by the Society of Jesus (The Jesuits). The motto of the college is "For the Good and the True". The college celebrated its centenary in 1944, sesqui-centenary in 1995 and Dodransbicentenary in 2019. The college was recognised by UGC as a College with Potential for Excellence (CPE) in 2004 and 2014, NAAC has reaccredited the college at the highest A⁺⁺ Grade (Cycle-IV) in 2019 and is ranked 25th position in NIRF India rankings 2023 under college category. St. Joseph's is the only college in Tamil Nadu that has been awarded with Special Heritage Status by UGC. The college trains young men and women of quality to be leaders in all walks of life so that they serve the people of the Nation in truth, justice and love. Accordingly, this college strives to be an agent of social change, by incorporating the scientific and technological growth in its UG, PG and Research (M.Phil/Ph.D) programmes.

About the Department

This century-old Department of Physics started B.A. Physics (1881), B.Sc (Hons.) Physics (1911), B.Sc (1930), M.Sc Physics (1961), Ph.D. (1971) and M.Phil (1977). Other than its own evolution, it had given birth to two departments, Computer science (1983) and Electronics (1993) in the college. To cater to the needs of the students, B.Sc and MSc (Physics) programmes in Self-financing section (shift II) was established in 1982 and in 2004 respectively. Presently there are 31 faculties and 9 non-teaching staff in the department. The department is constantly developing with the continuous support of management and the funding of UGC, DST-FIST, DST-SERB, DRDO and CSIR.

The department had established national and international collaboration in many fields of research in recent years and organises symposia and conferences periodically at all levels to ignite the students with scientific spirit. Over a period of 140 years, the alumni of the department have served and are still serving the nation in various capacities. Notable among them are Bharat Ratna, Dr APJ Abdul Kalam, the former President of India and Dr G N Ramachandran, an Indian Physicist who was known for his work, "The Ramachandran Plot" for understanding peptide structure, nominated for nobel prize (Doctoral student of Nobel laureate Sir C. V. Raman).



Events

Technical Talk

Experts from Department of Atomic Energy

Topic: 1 Atoms in the Service of the Nation

Topic: 2 Career Prospects in Department of Atomic Energy

Exhibitions

Exhibition for **UG, PG** College Students and Research Scholars

Competitions

Topic: Integrated approach in science and technology
for sustainable future

(i) Quiz competitions (ii) Creative writing competitions

Date : 30th November 2023

Venue : St. Joseph's College(Autonomous), Tiruchirappalli, Tamilnadu

Registration Details *No registration Fee

Who Can Participate?

UG, PG students, Research Scholars and Faculty members of Physical, Chemical and Biological Sciences are eligible to attend this program.

Registration Starts on: **14th November 2023**

***Registration can be done only by online mode**

Registration Link & QR Code <https://forms.gle/3C8ueXpFwWDvMPyy8>



For Details of the Event Contact:

Dr. I. Johnson: +91- 94429 04820,

Email : johnson_ph1@mail.sjctni.edu

Dr. J. Charles: +91- 98424 59311

Dr. S. Dinakaran: +91- 99659 98129

Dr. H. Joy Prabu: +91- 96776 25530

