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Provincial, Jesuit Chennai Province.

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Principal, Loyola College.

**Dr. J. A. Charles**

Deputy Principal, Loyola College.

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UNESCO, New Delhi.

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Secretary, Odisha Environmental Society.

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**Dr. M. Selvanayagam**

Director, LIFE, Loyola College.

## CONVENER

**Dr. V. Pushpa Rani**, LIFE, Loyola College.

## CO-CONVENERS

**Dr. M. F. Valan**, LIFE, Loyola College.

**Dr. S. John Mary**, LIFE, Loyola College.

**Dr. M. Victor Antony Raj**, LIFE, Loyola College.

## ORGANIZING SECRETARIES

**Dr. M. Jaccob**, LIFE, Loyola College.

**Dr. I. Jaqueline Chinna Rani**, LIFE, Loyola College.

## ABSTRACT SUBMISSION

Papers are invited on the themes of the UN Sustainable Developmental Goals within the scope of the conference. Abstract of not more than 300 words with keywords neatly typed with error-free in word file are invited. The soft copy of the abstract with registration form must be sent through email to the organizing committee, Loyola Institute of Frontier Energy (LIFE), Loyola College, Chennai.

## INSTRUCTIONS TO THE AUTHORS

Font : Times New Roman

Title : Font size 14

Authors and Affiliation : Numeric indications (font size 10)

Corresponding Author : Indication with\* and Email ID

Abstract : Max 300 words (font size 12) 1.5 line space

Keywords : (3 to 6) (font size 12)

## DATES TO REMEMBER

Last date for registration : 28-02-2025

Last date for abstract submission : 25-02-2025

Notification of acceptance : 27-02-2025

## REGISTRATION FEE

Category	Fees
Faculties/Scientists	Rs. 1000
Research Scholars/PG/UG Students	Rs. 500

## PAYEE'S DETAILS

M/S DIRECTOR LIFE  
Indian Overseas Bank  
Account No: 171201000009998  
IFSC: IOBA0001712  
Branch: Loyola College Campus  
Chennai - 600 034

## ONLINE REGISTRATION

<https://forms.gle/sT19tdLNRJU3Xn4s5>

## CONTACT DETAILS



<https://www.loyolacollege.edu/life/home>



[NCSDG2025LIFE@gmail.com](mailto:NCSDG2025LIFE@gmail.com)



Tel: (O) 044-28178332



Nungambakkam, Chennai - 34



# ★ NATIONAL CONFERENCE ON ★ SUSTAINABLE DEVELOPMENT GOALS

03<sup>RD</sup> & 04<sup>TH</sup> MARCH- 2025



SDG 02  
Zero Hunger



SDG 15  
Life on Land



## THEMES

SDG 04  
Quality Education



SDG 14  
Life below Water



SDG 13  
Climate Action



## Venue

Lawrence Sundaram Auditorium  
Loyola College

Organized by

Loyola Institute of Frontier Energy (LIFE)  
Loyola College, Chennai - 34

## ABOUT THE ORGANIZING INSTITUTE LOYOLA COLLEGE



Loyola College is a Catholic minority institution administered by the Society of Jesus, popularly known as Jesuits. On the 15th of June 1925, Rev. Fr. Francis Bertram, S. J. with a group of committed Jesuits, founded Loyola College in Chennai. With its affiliation to the University of Madras, the college started functioning with just 75 students on roll in three undergraduate programs of Mathematics, History and Economics. The college was recognized under sections 2(f) and 12(b) by UGC on 3rd March 1956 with a grant-in-aid from the Government of Tamil Nadu. Quality and access have remained the core values that guide Loyola to develop, administer and evaluate the curriculum, adopt teaching-learning and evaluation methodologies in alignment with global trends and social relevance.

The college aims at training young men and women of quality to be leaders in all strata of life and serve all, including the downtrodden, marginalized and Dalits in society with justice and compassion. Recognizing the credentials of Loyola College, the UGC conferred the status of "College with Potential for Excellence" in 2004 and 2010. In the fourth cycle of NAAC accreditation, Loyola College was awarded a score of A++, 3.55 out of 4 CGPA. The UGC elevated Loyola College to the status of "College of Excellence" for the period from April 1st 2014 to March 31st 2019. The college ranked 2nd in the category of college in NIRF 2017. It was ranked 6th in NIRF 2018, 2019 & 2020, 3rd in 2021, 4th in 2022, 7th in 2023 and 8th in 2024 by the Ministry of Education, Government of India. As of the Academic Year 2024 - 2025, there are 21 PG Programs, 24 UG Programs (Arts, Sciences and Commerce), 15 Ph.D. Programs with 9244 Students, 434 Academic Staff and 191 Administrative Staff.

## LOYOLA INSTITUTE OF FRONTIER ENERGY (LIFE)

Loyola Institute of Frontier Energy (LIFE) was started in 1995 for the purpose of interdisciplinary and collaborative research in Physics, Chemistry and Zoology. Energy, Environment and Bioethics as its focus and local relevance as the thrust areas. Six likeminded professors from these departments joined together under the leadership of Dr. Francis P Xavier SJ. And began functioning in a small laboratory in the Life Sciences Building. The basic tenet of LIFE is borderless, collaborative and interdisciplinary research in science with a balance between pure and applied sciences and the ultimate view of translating the fruits of research to improve the quality of life in Society. In the year 2002 LIFE shifted to new two-floor building equipped with centralized Instrumental center with more space for different labs and faculty members.

LIFE is possibly the first academic institution that initiated and is promoting multidisciplinary research. As bioethics becomes a trend-setter with the present advancement in science and technology, bioethics has become the basis of research at LIFE. In order to promote eco-friendly environment LIFE has been nominated by the Government of India as the nodal agency to establish and promote DNA Clubs in schools in Tamilnadu. In addition, LIFE also creates the facility with training programmes for school-teachers and children during summer. LIFE also organizes summer programmes with hands-on experience to the college and school students in the relevant and need based subjects. In order to promote basic science among the school children, with the help of Government, LIFE organizes vocational training programmes on biodiversity, bioresource and biotechnology. Team work is very much emphasized and promoted at all levels. Weekly seminar presented by the research scholars helps to discuss research progress for effective contribution for the scientific world. India Today ranks Loyola College First in Science at All India level in 2003, 2005 and 2006 and it recognizes outstanding LIFE's contribution. LIFE has so far published more than 725 papers in both National and International peer-reviewed scientific journals. Since its inception, it has organized more than 118 national/international conferences, seminars, workshops and brainstorming sessions. Twenty-three patents were filed and obtained, also 10 MoUs were signed nationally and internationally for collaborative research. Currently LIFE has 7 staff members and 24 PhD research scholars all are involved in different project works. LIFE also publishing "CONVERGENCE" a multidisciplinary peer-reviewed quarterly journal devoted to original research and scholarly reviews covering physical, Chemical and Life sciences, is published since 1999.

## BACKGROUND

The 2030 Agenda for Sustainable Development with 17 SDGs and 169 targets, is a plan of action for people, planet and prosperity. The SDGs are universal, transcend borders and apply across the workplace, marketplace and community. The SDGs are deeply interconnected, *i.e* progress on one goal can have a significant impact on progress in meeting others. Business cannot thrive in a world of poverty, inequality, unrest and environmental stress, and so it has a vital interest in ensuring the 2030 Agenda is delivered. In the Indian context, as India witnesses' higher growth rates and transforms itself into the New India, it is imperative that SDGs reside as the underlying framework for businesses to achieve sustainable growth. The implementation path to achieving SDGs would not only help India to grow but also help us to sustain our growth and our society without taking away what we owe to our future generations. As we inch towards creating the New India, we need to understand what needs to be done and act now!

## ABOUT THE CONFERENCE

The concept of sustainable development, once confined to environmental considerations, has expanded its horizons to encompass a myriad of emergent issues that demand our attention and action. The urgency of addressing climate change has never been more pronounced in today's world. The effects of climate change, ranging from severe weather events to biodiversity decline, resonate through ecosystems and societies alike, emphasizing the crucial need for united efforts. How we adapt and lessen these consequences will shape the resilience of our communities and the sustainability of our planet.

The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, hunger, education, inequality, climate change, biodiversity, bioresources, environmental degradation, peace and justice. The 17 Goals are all interconnected, and in order to leave no one behind, it is important that we achieve them all by 2030.

This conference provides a vibrant stage for researchers, practitioners, policymakers, and advocates to come together, share ideas, and outline directions for a more environmentally sustainable future. Through insightful discussions, interdisciplinary dialogues and shared experiences, we aim to illuminate the emergent issues shaping sustainable development agendas worldwide.

## AIM OF THE CONFERENCE

The Sustainable Development Goals (SDGs) aim to transform our world. They are a call to action to end poverty and inequality, protect the planet, and ensure that all people enjoy health, justice and prosperity. It allows us to preserve the environment, protect biodiversity, mitigate climate change, eradicate poverty, promote social inclusivity and foster long-term economic growth. The earth has enough resources to meet our present and future needs for development if we use them economically.

With this background, Loyola Institute of frontier Energy (LIFE), Loyola College is organizing the National Conference on the Role Science and Technology in achieving UN Sustainable development Goals with special reference to Zero hunger, Quality education, Climate action, Life below water and Life on land on 20th and 21st February 2025 with the below listed objectives.

## OBJECTIVES OF THE CONFERENCE

- To create strategies and achievements and lessons learned in contributing to Sustainable Development Goals (SDGs).
- To create an awareness on the importance of SDGs and AI in agriculture to create hunger-free society.
- To work towards zero emissions or net zero and decarbonization by reducing emissions to achieve net zero and to develop effective mitigations and adaptations.
- To highlight the importance of biodiversity, bioresources, life below water and life on land.
- Understand how our research contributes to the UN's Sustainable Development Goals.
- LIFE is a multi-disciplinary research institute and it would be apt to implement various SDGs.
- To understand the existing biodiversity and bio-resources both on land & water and to take adequate measures to conserve and protect.

## OUTCOMES OF THE CONFERENCE

The conference will bring together government officials, media professionals, academicians, NGOs, academicians and research organizations. It will open-up new vistas of opportunities how research in science and technology will enhance the possibilities of achieving these sustainable development goals. These collaborations will generate a better understanding among these stakeholders about their roles and responsibilities in achieving SDGs and subsequently lead the state to achieve its goals within the given period of time. This conference will provide an ideal platform for the exchange of novel ideas and experiences through science and technology among the

government officials, academicians, NGOs, media personalities and professionals.

Exposure to students and faculty members to the new trends and ongoing debates about SDGs.

Development of prospects and initiatives by the students and faculty members in the areas of sustainability.

Presentation of quality research papers and their publication.

## BROAD SUB THEMES OF THE CONFERENCE

The conference is an excellent forum to discuss and explore ways in which the different stakeholders of the conference can contribute to sustainable development. The conference will be spread over the following five tracks:

### Track 1: SDG 2 – Zero Hunger

#### Topics:

- Smart agriculture and nutrition solutions for food security
- Role of communication in raising awareness about sustainable farming practices
- Creating effective networks for food security in remote areas
- Using technology to minimize food wastage and losses
- Precision agriculture and its potential to enhance crop yields
- Promoting climate-resilient crops through information dissemination
- Communication strategies to improve nutritional awareness and dietary habits

### Track 2: SDG 4 - Quality Education

#### Topics:

- Innovations in education for inclusive development
- Technology-enabled remote learning in underserved communities
- Addressing barriers to quality education
- Collaborative approaches for bridging the education quality gap
- Professional development through digital resources and online training
- Fostering teacher-student engagement in virtual learning environments
- Building partnerships to enhance access to quality education for all

### Track 3: SDG 13 - Climate Action

#### Topics:

- Harnessing digital technologies for inclusive development
- The role of AI in climate modeling and prediction
- Renewable energy integration and climate mitigation
- Green technologies for sustainable urban development
- Sustainable solutions for a changing climate
- Integrating SDGs: from climate action to global prosperity
- Innovation, collaboration and the path to a sustainable future

### Track 4: SDG 14 - Life below Water

#### Topics:

- Aquatic pollution and management
- Oceans are our planet's life support as they provide water, food and help regulate the weather
- Oceans also provide job opportunities
- Marine biodiversity and livelihood.
- Role in carbon sequestration
- Coastal area management

### Track 5: SDG 15 - Life on Land

#### Topics:

- Terrestrial biodiversity and bio-resources management
- Protect, restore and promote sustainable use of terrestrial ecosystems
- Sustainable management of forest
- Combat desertification, and reverse land degradation
- Loss of biodiversity
- Sustainable utilization of natural resources
- Wildlife management