## LOYOLA-ICAM



#### COLLEGE OF ENGINEERING & TECHNOLOGY (LICET)

Loyola Campus, Nungambakkam, Chennai-600 034, Tamil Nadu, India.

All UG Programmes are accredited by NBA
Approved by All India Council for Technical Education (AICTE)
Permanently affiliated to Anna University, Chennai
Christian Minority Institution (Recognized by Tamilnadu Govt)
ISO 9001:2008 certified Institution

**Anna University Counselling Code: 1450** 

PROSPECTUS 2021-22

"LET YOUR LIGHT SHINE"



Loyola-ICAM College of Engineering and Technology (LICET) is the only Engineering and Technology Institution founded and managed by the Jesuits of Tamil Nadu.





Rev Dr Jebamalai Irudayaraj SJ Provincial and Chairman



Rev Dr Francis P Xavier SJ
Rector and Vice Chairman



Rev Dr S Maria Wenisch SJ
Director



Mr Jean-Michael VIOT
Director-General ICAM, France



Dr L Antony Michael Raj Principal



Dr Caleb Chanthi Raj
Dean of Students



Mr Nicolas Juhel
Dean-Engineering Education





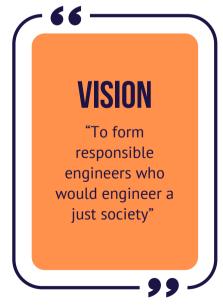
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## PROSPECTUS 2021-22

#### Telephone:

LICET Office: 044-28178490 Reception (Campus): 044-28178200

#### Fax:

044-28178493

#### Email:

licet2010@gmail.com licet@licet.ac.in

#### Web:

www.licet.ac.in



# FROM THE DIRECTOR'S DESK



Loyola ICAM College of Engineering and Technology(LICET) is a joint venture of Loyola College Society and ICAM group, France. LICET is the only Jesuit Engineering College in Tamil Nadu following Ignatian pedagogy in forming men and women for others. Founded in the year 2010. LICET is unique in all possible ways.



LICET has taken a mission of forming engineers who would engineer a just society. Engineers focus on finding the real time solutions to the problems of the world. Any project that forgets humanity, ultimately would become meaningless and useless. LICET focuses on the holistic approach to student formation. This holistic approach to engineering education not only looks into the technical aspects of human life but also includes all the aspects of human life.

The engineers who come out of LICET will become socially conscious and in turn become an agent of social change.

Based on the mantra 'cura personalis' - care of the individual, LICET gives attention to the individual student's growth to be a responsible human being and professional through mentoring and counseling.

LICET offers a space to students to excel in their individual unique talents and capabilities. The superior infrastructure at LICET provides a conducive environment for students to learn and to give shape to their own dreams and aspirations.

LICET accompanies each student in both curricular and cocurricular activities. The students will be able to find space to showcase their talents both onstage and

off stage. They are groomed to become excellent in their own talents. Students also are given opportunities to implement their technical skills in various small and big projects. For example, the LICET website is designed and maintained by the team of LICET alumnus and students; LICET Turbonites is a team of student designers from mechanical engineering who build their own buggy from the scratch and participate in various national competitions; LICET Pattarai is another innovation of students where they provide need based training and competitions. LICET is a good laboratory to mould yourself as a good human and engineer.

I welcome the aspiring candidates to apply. All you need is a desire to do engineering with an open heart to undergo a holistic formation. You will enjoy discovering the light within you and let it shine day by day brighter, farther and wider. You will become a light to many in the world.

ALL THE BEST!

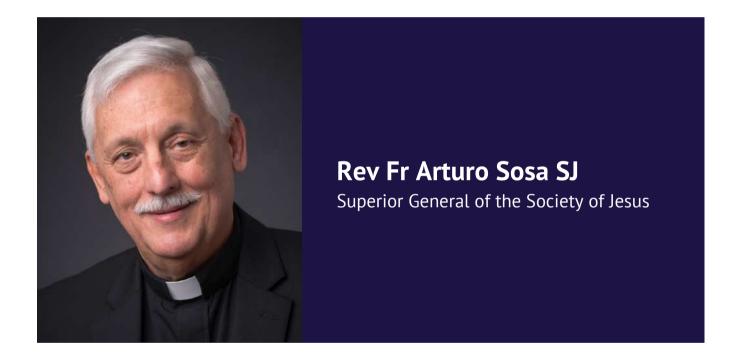
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Dr S Maria Wenisch SJ Director



#### **JESUITS**

The Society of Jesus was founded by St Ignatius of Loyola in 1540. Jesuits work for creating a reconciliation every day with God, human beings and the environment. Jesuits are ready and willing to work anywhere in the world, even in extreme conditions. Over the centuries, Jesuits have founded hundreds of schools, colleges, and social centres around the world with the aspiration to alleviate poverty, working towards equality, promoting human dignity and social justice with vigour, excellence, and integrity.



The values of Jesuits have long played an incredibly influential role in the growth and development of nations, organizations, leaders, bureaucrats and scholars. In India, the Jesuits entered higher education by getting the intellectual-ball rolling, by starting a college (the renowned St Joseph's College) as early as 1844 at Nagapattinam which was later shifted to Tiruchirapalli in 1883. Educational institutions of the Jesuits are globally recognized and endorsed for their academic excellence and holistic formation in forming men and women for others.



#### LOYOLA CAMPUS

"21<sup>st</sup> century education needs 21<sup>st</sup> century infrastructure"

Loyola College, Chennai is one among the 200 Jesuit Higher Education Institutions spread over 110 countries all over the world. The campus super abounding with trees and gardens is a delight to the eye and a solace for the soul that would inspire anyone to enjoy a placid promenade. Loyola Campus has a distinctive collegiate structure, as the palatial heritage buildings in the campus are structurally sufficient and functionally efficient. An artistic church of Gothic style on the campus has been a spiritual sanctuary. The campus is strategically located for all major attractions.

Loyola's academic history is rich and inspiring. Loyola has often led the way with new ideas and discoveries in the realm of arts, science and humanities. Today there are 19 PG courses, 19UG courses (Arts, Science & Commerce) and 12 special institutes offering various programmes to 12,107 students. There are 12 departments that offer Ph.D programmes. UGC has elevated Loyola College to the status of 'College of Excellence'.





#### **MAJOR FACILITIES**

















- The Central Library
- The Loyola Digital Library that provides 24-hour access to the students
- Loyola Men's Hostel and Loyola Women's Hostel that can accommodate 1650 students.
- Loyola Health Centre
- Food Court
- Students' Recreational Parks
- Sports Pavilion and Gymnasium
- Indian Overseas Bank and ATM Kiosks
- Post Office



# "ENGINEERING A JUST SOCIETY"



#### LICET's Journey

The Jesuits' concept of engineering education at Loyola Campus is to have a global standard that ensures academic professionalism excellence with creativity. The story of LICET has been one of commendable change, progress and enduring ideals. LICET had its inception in the year 2010 to shape the future of young minds who are predisposed to engineering. The joint enterprise between Loyola College Society, Chennai and ICAM, France was forged in April 2009, when the MOU was signed based on the common vision of forming authoritative engineers Creativity, Competence, Commitment and Compassion. Ever since the MoU was signed, LICET has propelled students' life in an upward trajectory. Thanks to the grit and determination of LICETians, there is much progress to report.

- AICTE Approval
- Affiliation to Anna University
- ISO 9001 2008 Certification
- MoU with
  - St.Louis University, USA
  - American University of Sovereign Nations, USA
  - o Boston College, USA
  - Fairfield University, USA
  - Heilbronn University, GERMANY
  - Comillas University, SPAIN
  - Fujen Catholic University, TAIWAN
  - Shibaura Institute of Technology, JAPAN
  - DAIKIN
  - NIWE
  - Renault Nissan
  - Valeo
  - Redhat
  - Tech Mahindra
  - Peugeot Société Anonyme, Citroën, FRANCE
- NBA Accreditation
- Permanent Affiliation with Anna University



#### LICET PEDAGOGY

#### A FOUR-PILLAR APPROACH

ACADEMIC EXCELLENCE

PROFESSIONALISM

HOLISTIC FORMATION

NTERNATIONAL EXPOSURE

#### VISION

To form responsible engineers who would engineer a just society

#### MISSION

- To provide technical education in a Christian atmosphere to deserving students who are economically poor and socially marginalized
- To train young men and women of quality to be leaders in all walks of life and serve their fellowmen with justice, truth and love
- To implement teaching learning processes that ensure guidance and mentoring for students throughout their period of study
- To provide higher education through academic collaboration and pursue research in the international perspective of Engineering.





LICET, one of the leading higher education institutions in Tamil Nadu, turbocharged by Jesuit pedagogy is committed to transforming students, inspiring them to provide technical solutions to contemporary real time challenges by demystifying and demonstrating the rudimentary concepts in engineering and technology.

#### LICET OFFERS

### 5 UG COURSES

#### WITH THE INTAKE AS FOLLOWS

>	Computer Science & Engineering	60
>	Electrical & Electronics Engineering	60
>	Electronics & Communication Engineering	60
>	Mechanical Engineering (Two Sections)	120
>	B. Tech in Information Technology	60
	Total Intake	360

#### **ADMISSION PROCESS**

About 400 students are admitted to LICET each year. As a Christian minority institution LICET exercises its discretion to admit 50 percent of the student through Management Quota and the other 50 percent through Tamil Nadu Engineering Admission (TNEA) counselling. Each applicant, through management quota is reviewed with an eye to academic excellence, motivation level and personal context.



#### Igniteen - An Induction Programme

The Student Induction Programme is designed idiosyncratically for the first year students. It gears up the freshers for technical education by walking through the basic concepts. The motivational component of the programme aims to bring out the primal genius and dormant fire within the student.

#### **System Discovery**

In system discovery, the students combine analytical rigour with curiosity, playful imagination and develop an appetite for solving technical problems of a gadget also. In this way, a student can get his / her head around some of the involved concepts to the point of automaticity.

#### **System Analysis**

In system analysis, we gear up the students to confront an involved contraption forthrightly and get across to the working principle of each and every component with hard logic. During the second stage of the system analysis programme, a student has to extend the concepts learned in the first stage to a real time practical application.

#### Project Expo

LICET makes sure that the students gain hands-on experience by doing project works. The project coordinators and the project guides give the students a clear blueprint of various stages involved in the project and monitor the students as they do the project work at LICET. Every year, LICET organizes project expo across all the departments. Students demonstrate their authentic project work before the judges in real time.



#### **Team Turbonites**

Students in Team Turbonites have always felt the need to flee to the crushing business of constructing a celtic war chariot. BAJA and Go-kart are the events that propel students' intense practical activity to come up with an augmented, amplified and improved version of All Terrain Vehicle. LICET students have won in E-bike Competition and Bicycle Design Competition. Students are gearing up for Aeroclub based activities and are involved in designing Unmanned Aerial Vehicle and Drones as future endeavours.



## LIBRARY - "An Intellectual Catalyser"

LICET library has huge volumes that cover a variety of books on engineering, humanities, competitive exams, fictions and other general books. The library also manages a digital repository created to capture, preserve, share, cite and analyze intellectual outputs. The materials available at the disposal of the students can be requested for pickup at LICET library.

#### Internship

LICET makes sure that every student completes the internship programme in industries. This gives them the technical fortitude that would help them thrive in their career. The internship committee at LICET measures the impact of internships on students and takes necessary actions to further enhance the industry experience.



#### STATE-OF-THE-ART LABORATORIES

LICET is a self-sufficient student town honeycombed with top-notch laboratories. The automation labs with industrial set up, Thermal lab and Centre of Excellence in machine learning would astound any student.



## FabLab Investing on future engineers, prime movers and tinkerers!

Any student can experience peak productivity and virtuosity by working in the LICET Fablab. The laser cutting machine and 3D printers would amaze anyone. Fablab enables a broad (amaze/astound?) range of academic and industrial R&D projects by providing access to students to inculcate deep knowledge of fabrication techniques and process development.





#### Al Lab

To cater to the current demands and to foresee the future perspective of Artificial Intelligence, LICET has built a high performance computing facility for multidisciplinary applications in Artificial Intelligence. LICET is one of the proud winners of NVIDIA GPU Grants which consists of a couple of embedded supercomputers and the following GPUs.

- TITAN RTX
- QUADRO RTX 6000
- JETSON TX2 Developer Kit

## Centre for Intelligent Systems

When it comes to getting across involved concepts, LICET is not beholden to tradition. With the Macintosh computers at disposal, a student has the discretion to build fundamental technologies that are necessary to scale up authentic Android & IOS apps. The smart interactive TV enables a conducive demystification of professional languages such as C, C++, Java and spoken tutorial in PHP, LATEX, RUBY and PERL.





















#### **ACADEMIC STIFFENERS**



#### Class Advisors -Navigational guide

Class advisors act as navigational guides to point students in the direction of broader perspective while maintaining a professional acquaintance with parents.

## Parents Teachers Meeting

PTA meetings provide insightful and actionable information to the parents about their wards that would help them in the progress of the students towards responsibility.



#### **PROFESSIONALISM**

As LICET is inclined towards getting more jobs for the students, it is far more important to equip the students with the skills required to grab the jobs. LICET inspires young people to develop passion for skills through training and perfect them through the process of exhaustive assessments.



#### Training & Placement

LICET has bagged the National Employability Award 2020 for being among the top 10% engineering colleges in Tamil Nadu. An estimable 85% placement record is consistently maintained at LICET. It is hugely and enduringly to the credit of both the recruiting team and the placement team. Top notch companies hire from LICET and at generous salaries.

By training the students we lower the ladders of opportunities to them, making them conversant with aptitude, analytical skills and coding skills. LICET keeps maintaining its partnership with reputed training organizations like Aon-Hewitt, Cocubes and Aspiring Minds.



## DAIKIN Centre of Excellence - learners today, leaders tomorrow

DAIKIN has set up a state- of- theart training centre at LICET for the young minds who can be entrusted with the expansion of the air conditioning industry, harnessing their potential for the HVAC industry. DAIKIN engages with LICET at a microlevel, ensuring that the facility is utilized to the maximum and students learn and grow to become industry experts. Right from the inception of the Centre of Excellence in 2017, around 300 students have been trained for expertise in HVAC. DAIKIN has been constantly supporting LICET in placement. Every now and then, the CoE is visited by DAIKIN officials to monitor the progress.









#### **Entrepreneurship Cell**

The entrepreneurship cell at LICET administers programmes and convenes events that promotes and shapes the entrepreneurial abilities of the students. Speeches by reputed entrepreneurs, incubating the ideas of budding entrepreneurs, marketing, are some of the events conducted by the entrepreneurship cells. Entrepreneurship cell also aims at spinning out applicable projects into commercial ventures. LICET has produced around 50 entrepreneurs forming the cornerstone of new industries, creating value and employment.





#### Pattarai - Putting ideas into practice



Pattarai, a flagship project club envisioned, established and brought to life by LICET students, works to transform the potentiality of an idea into invigorating actuality. It is run and managed by students, under the supervision of a faculty. If you are someone who keeps inventing new ideas, then Pattarai is the place for you, where your ultimate autonomous authorship of your idea is recognized. Web Hackathon, development, Computer Science Boot Camp, Workshops on disruptive App Development are some of the technical odysseys that are being organized by Pattarai. Pattarai can be visited at www.pattarai.in









#### LICET Alumni

LICET Alumni Association maintains and engages a highly vibrant community of alumni worldwide. LICET Alumni are now reaching high stations in life and Alumni Meets provide a conducive environment to call upon the lessons the alumni passed on through their perseverance and diligence. Wide spectrum of issues ranging from agriculture, employment, entrepreneurship and numerous other subjects are discussed during the Alumni Meet every year on 15th August.



#### HOLISTIC FORMATION

Holistic formation is a philosophy of education based on the premise that each person finds identity, meaning, and purpose in life through connections to the community, to the natural world, and to spiritual values such as compassion and peace. "At its most general level, what distinguishes holistic education from other forms of education are its goals, its attention to experiential learning, and the significance that it places on relationships and primary human values within the learning environment."











The following aspects are interwoven into the intellectual fabric of LICET

- Cultural Activities
- Mindfulness & Yoga
- Outreach Programmes
- NCC
- Campus Ministry
- Counselling
- Service Learning Units
  - YRC
  - Rotaract
  - NSS
  - o Eco Club



## EnGenia - Bringing to Light the superstar out of a student

Students, collectively and as individuals have potential that is grossly untapped. EnGenia is a spectacular extracurricular odyssey where students savor and celebrate their distinctive talents. The beauty of EnGenia lies in the diversity of the events. During the off stage events, the students showcase their talents in a wide variety of stunningly attractive co-curricular and extra-curricular competitions. The on-stage events, designed to bring out the latent talent of the students would blow the cobwebs off anyone.





#### Mentoring

Each student is assigned a faculty member as a mentor. The mentor gets both hard logic and warm emotion working together to help meet both personal and academic challenges.

## Professional Counsellor

The professional Counsellor exercises tried and proven techniques to face the various challenges faced by students.



#### **Grievance Cell**

The Grievance Cell, a strategic initiative overseen by the Dean of Women helps students to endure and navigate testing times.



#### **Recreational Facilities**

Students, faculty and staff enjoy state-of-the-art recreational facilities and wellness programmes. There are many sports programmes to cheer about at LICET.



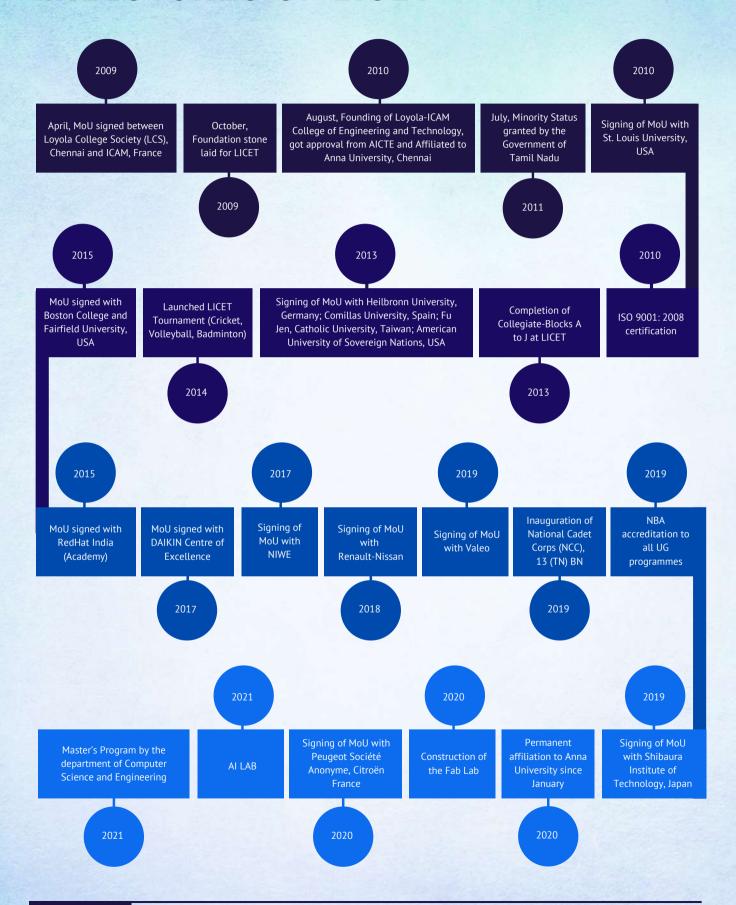
#### LICET Tournament -Creating a Sound body besides a sound mind



The LICET Tournament needs no introduction. A tournament that makes players courteous, fair and respectful. It is inspired by players, coaches, spectators and authorities. Colleges and universities all around Tamil Nadu participate in LICET tournaments making students even more determined and exuberant. Over the past decade, students of LICET have achieved commendable victories in Badminton, Cricket, Table Tennis, Tennis, Volleyball, Football, Athletics, Swimming, Taekwondo and Squash. Every year close to 100 students take part in tournament and the best thing is they create a sense of sportsmanship and shared emotion.



#### MILESTONES OF LICET





















## INTERNATIONAL EXPOSURE

To offer unparalleled student experiences across a broad spectrum of academic experiences, LICET has signed MoU with world class institutions. MoU with St.Louis University, USA was signed in 2012 and MoUs with Heilbronn University, Germany, Comillas University, Spain, American University of Sovereign Nations, USA and Fujen Catholic University, Taiwan were signed in 2013. MoUs were also signed with Boston College and Fairfield University, USA, in 2015 for International exchange programmes. In 2019, MoU was signed with Shibaura Institute of Technology (SIT), Tokyo, Japan.



#### **Summer Program in FRANCE**



Summer programme at LICET is a signature experiential learning programme that cross-cuts theory, project and French culture. Students gravitate towards this programme with aspirations ranging from exploring the segway towards higher studies to delving deeper into projects.

Every year, students disposed of into four groups will be sent to 4 ICAM campuses in France (Lille, Toulouse, Nantes and Parissenart) for a month long summer programme that embodies the values, ideals and creativity that adds up to a prime spot to make the most of a students' potential.



# HERZLICH WILLKOMMEN WELCOME // BIENVENUE

#### Project Based Learning in JAPAN

MoU with NCRM and Shibaura Institute of Technology, Japan, provide opportunities for our students to participate in problem based learning, an International competition, held at SIT, Japan. Students are sponsored by NCRM and SIT.

## Projects in SPAIN and GERMANY

Every year a sizable number of students are sent to Comillas University, Spain and Heilbronn University, Germany to put their authentic project ideas into practice, bringing them to life in realtime.



#### **Cafeteria**



LICET has a spacious canteen that provides varieties of food at a reasonable price to help the students recoup and rebound. It's a place of relaxation where the students have fun and exchange information with their friends.



Loyola Women's Hostel





#### Residential Life

LICET provides separate hostels for boys and girls. The Loyola Hostel buildings provide a safe and supportive residential environment that fosters a sense of community and enhances the Loyola experience for both boys and girls.









**LICET Men's Hostel** 

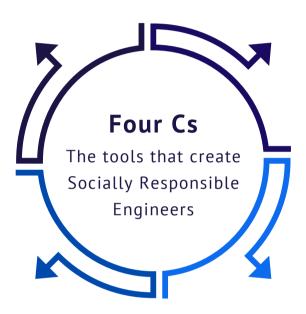


#### Creativity

In 1546, Ignatius made a commended decision to start a school for the education of young Jesuits and local boys. Creativity driven by magnanimity and greater service to God is one of the unique attributes of LICET. Creativity is passionately instilled in students' minds by encouraging them to snap up various hackathons.

#### Competence

The familiar proverb, "Give a man a fish, you feed him for a day; teach a man to fish and you feed him for a lifetime", well captures the Ignatian Pedagogy of Competence. Competence does precede mastery. LICET's commitment to produce competent engineers is well elucidated in the testimonies of LICET Alumni.



#### Compassion

Ignatian Compassion works on individual level, familial level and social level. While preparing young men and women for life, LICET promotes cherished values and principles which will ultimately result in a just and humane society. The work that the LICET social activity clubs do in resolving grievances, standing up for the disadvantaged and acting as agents of progressive change is greatly appreciative, which also deserves respect. LICET conducts various competitions to inculcate compassion, including elocution, poster making, essay writing to inculcate compassion. With the grace of Lord Almighty, LICET consistently organizes Blood Donation camp in collaboration with NSS, YRC and Eco Club.

#### Commitment

LICET understands that if a student commits to whatever he / she does to the highest good that can be conceptualized, then every moment of the student's life will be supercharged with meaning. Over the past decade LICET has axiomatically inculcated commitment into the hearts and minds of its future leaders.



















#### Note to the parents

It's our desire that you pass on the values of empathy and kindness to your children by loving them. Your ward would be richly benefitted if you could provide a conducive and stimulating environment at home. Children aren't growing up watching the idiot box and operating an xbox. So, monitoring them periodically is an investment. Monitor their progress (peruse their progress report) and speak to the professors if necessary. Be involved, not when they are doing well, but, when it is difficult, thankless and are struggling. Many a time, a gentle poke by the parents can tip the trajectory of the students a little more sharply towards responsibility.



#### Note to the public

LICET **does not accept donation** of any kind for admission. **Ragging** is **strictly prohibited** at LICET.

#### FOR FURTHER DETAILS CONTACT

**Dr L. Antony Michael Raj** Principal

Ph: (044) 28178490 - Extn 103

Mobile: 9003825593

**Dr Caleb Chanthi Raj**Dean of Students & Admission Officer

Ph: (044) 28178490 - Extn 104

Mobile: 9003825594



