



Academy of Scientific &
Innovative Research

Set up by an Act of Parliament, An Institute of National Importance



Integrated M.Tech-Ph.D (IMP) in Engineering

Integrated M.Tech-Ph.D in Engineering

WHY STUDY AT AcSIR?

The objective of AcSIR is pursuit of excellence as well as doing something relevant. We promote the culture of being singularly dynamic and innovative. The Academy was established by a Resolution of the Parliament in 2010 and received recognition as an “Institution of National Importance” by the Academy of Scientific and Innovative Research (AcSIR) Act 2011. The Academy aims to maximize the number of qualified researchers and professionals of impeccable quality in the domain of science and engineering; and to equip them with the skills to innovate and conduct seamless interdisciplinary research.

FACULTY

There are over 2,000 Scientists of CSIR as Faculty members of AcSIR along with Eminent Academy Professors, Distinguished Emeritus Professors and Adjunct Faculty members from reputed institutions and companies.

ABOUT PROGRAMMES

Integrated M.Tech-Ph.D programme offered by Academy of Scientific and Innovative Research (AcSIR) is a **2+3 years full-time residential programme** which is segregated into two segments:

- M.Tech programme (2 years) consisting of four-semesters and
- Ph.D programme (3 years) after successful completion of M.Tech will be decided on a case-to-case basis.

The programmes are designed to give in-depth exposure and hands-on R&D experience to the candidates in the respective areas. The selected candidates will be trained on exciting live projects so that they emerge as research ready scientists/ engineers for taking up challenging positions.

POSITIONS OFFERED/ WHO CAN APPLY?

- **Quick Hire Fellow (QHF) positions** available for meritorious candidates for which Quick Hire Fellowships may be used by the individual CSIR laboratories.

Any such candidate may like to join Ph.D programme of AcSIR as well. They will have to

obtain support from CSIR-SRF under CSIR-HRDG (EMR) during the Ph.D programme provided the candidate meets all the eligibility criteria.

- **NET Engineering or GATE (JRF)** qualified candidates are eligible to apply for Integrated M.Tech-Ph.D programme. If selected, they will obtain stipend (JRF/ SRF) from CSIR-HRDG (CSIR-EMR) for completing the M.Tech and Ph.D programmes. A valid NET(Engg) rank or GATE score is mandatory requirement for these positions.
- **Industry/ Project Sponsored Candidates** may also be enrolled for the programme at AcSIR. Such candidates shall contact the CSIR lab of interest and should obtain prior approval from the lab for the position. Also, such candidates are advised to receive a commitment from a faculty of the concerned lab agreeing to act as a Guide/ Advisor.
- The Employing organization of such Sponsored Candidates will have to support the student during his/ her tenure as a student at AcSIR and will have to provide a no objection certificate for such an enrolment. Such candidates will have to be a residential student for the coursework of their M.Tech/ Ph.D programmes, respectively as in the following table.[#]

ELIGIBILITY CRITERIA

Engineering Graduates under **10+2+4/ 10+3+3** system are eligible to apply. The age of the candidates should not be more than 28 years as on July 01, of the year of admission. For reserved category, age relaxation as per Govt. of India rules will be followed.

Candidates whose final results are awaited, but who are otherwise eligible as per the screening criteria, can also apply. If selected, they will be provisionally admitted to the programme. Their continuation in the programme will be subject to securing required percentage/ equivalent grade (depending on the cut-off marks for screening for the specific programme) and submission of marks-sheet of their final result by October 31, of the year of admission.

There shall be no bar on age for Industry/ Project Sponsored Candidates.

ADMISSION PROCESS

The candidates can exercise a maximum of two preferences. Candidates will be screened based on their preferences. However, it does not give any right to the candidate to determine their preference/ choice, as the selection is purely based on performance and/ or available vacancies. Please visit AcSIR website (<http://acsir.res.in>) for on-line application form submission and additional details.

Short-listed candidates for the different positions will be intimated electronically and they will be required to appear for interview for selection at the designated centers on the dates announced. Details of interview centers will be posted on the AcSIR website (<http://acsir.res.in>).

In addition to their academic performance and/or depending on the vacancies, final selection will be based on performance of the candidate in the interview.

ACADEMIC REQUIREMENTS

Programme	Min. Total Credits	Min. Credits thro' coursework	Credits thro' Research/ Project	Min. Residence Period #	Normal Period of Completion #	Max. Duration of Completion
M.Tech	64	32	32	4 Sems	2 years	3 years
M.Tech (Industry Sponsored)	64	32	32	2 Sems	2 years	3 years
Integrated M.Tech-Ph.D (Engg)*	12*	4	Completion of thesis	3 Sems	3 years	4 years

* For Ph.D part of programme, two 4 credit courses are mandatory as per the following:

- One Review Article and One Project Proposal to be prepared before Comprehensive Exam by selecting topics of high relevance and novelty, and will have state-of-the art review, methodologies, recommendations etc. (2 credits each)
- Six-Eight weeks have to be dedicated on a project concerned with societal/ rural issues under the CSIR-800 Project (4 credits). This needs to be completed before submission of thesis.

Depending on the merit of the case this may be reduced/ waived.

PROGRAMME FEE STRUCTURE

Programme		Programme Fee per annum (INR)	Thesis Submission Fee (INR)
M.Tech	Regular	48,000	-
	Sponsored	96,000	-
Ph.D	Regular	12,000	5,000
	Sponsored	24,000	25,000

Note: Hostel Boarding and Lodging Charges shall be as applicable.

For Foreign Nationals Tuition Fees shall remain same.

IMP candidates will have an exit option available upon completion M.Tech.

EVALUATION PROCEDURE AND GRADING SCHEME

The Integrated M.Tech-Ph.D programme is made up of 2+3 years with continuous internal evaluation and a semester-end examination for all courses.

Letter grades will be awarded for each course reflecting the student's proficiency and instructor's expectation. The grades and their description along with their equivalent numerical values, where applicable, are as follows:

Integrated M.Tech-Ph.D in Engineering

Letter Grade	Performance	Numerical Value
A+	Outstanding	10
A	Excellent	9
B+	Very Good	8
B	Good	7
C+	Fair	6
C	Poor	4
F	Very Poor	2
I	Incomplete*	0
S	Satisfactory (for Thesis)	
X	Unsatisfactory (for Thesis)	

* "I" grade shall be given to students who have (i) Not Attended Classes; and/or (ii) Not been evaluated. This implies repeating the full course.

Performance of the student will be evaluated by two indices, Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA). These will be calculated as follows:

INTERESTED CANDIDATES MAY APPROACH THE FOLLOWING CSIR LABORATORIES FOR:

S. No.	Title	Lab Name
1	Advanced Automotive Technology	CSIR-IIP, Dehradun
2	Advanced Electronic Systems	CSIR-CEERI, Pilani
3	Advanced Instrumentation Engineering	CSIR-CSIO, Chandigarh
4	Advanced Materials Physics and Engineering	CSIR-NPL, New Delhi
5	Advanced Petroleum Science and Technology	CSIR-IIP, Dehradun
6	Advanced Semiconductor Electronics	CSIR-CEERI, Pilani
7	Applied and Computational Mechanics	CSIR-CMERI, Durgapur
8	Building Engineering and Disaster Mitigation	CSIR-CBRI, Roorkee
9	Chemical and Electrochemical Engineering	CSIR-CECRI, Karaikudi
10	Chemical Engineering- Modeling & Simulation/ Materials & Processes	CSIR-NCL, Pune
11	Engineering of Flight Vehicles	CSIR-NAL, Bangalore
12	Engineering of Structures	CSIR-SERC, Chennai
13	Environmental System Engineering and Modeling	CSIR-NEERI, Nagpur
14	Glass and Ceramic Engineering	CSIR-CGCRI, Kolkata
15	High Power Microwave Devices and System Engineering	CSIR-CEERI, Pilani
16	Material Resource Engineering	CSIR-IMMT, Bhubaneswar
17	Mechatronics	CSIR-CMERI, Durgapur
18	Mine Safety Engineering	CSIR-CIMFR, Dhanbad
19	Mineral Processing, Metal Extraction and Resource & Waste Management	CSIR-NML, Jamshedpur
20	Process Engineering Science	CSIR-IICT, Hyderabad
21	Renewable Engineering	CSIR-SERC, Chennai
22	Transportation Engineering	CSIR-CRRI, New Delhi

➤ **SGPA** = {Sum of (Course credit X Numerical value of course grade)} / Total course credits earned in the semester

➤ **CGPA** = Cumulative points scored in all passed courses / Cumulative credits earned

A student needs to have a SGPA of over 6.0 in each semester and a CGPA of over 6.5 from second semester onward for continuation.

Minimum grade point to be earned to pass any subject is 6.0.

For distinction, the student need to score CGPA = 8.0 or above.

USEFUL LINKS FOR FURTHER INFORMATION

Online applications and further information about studying at AcSIR

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Visit us: <http://acsir.res.in>

Academy of Scientific and Innovative Research

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