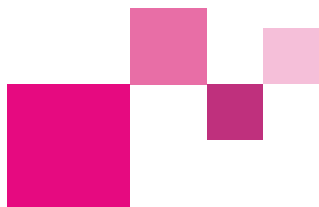




# Academy of Scientific & Innovative Research

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



## Ph.D & INTEGRATED Ph.D IN ENGINEERING

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## 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

Ph.D in Engineering and Integrated Ph.D in Engineering, which equips students to undertake interdisciplinary research by providing a broad-based practical training in best in the class national laboratories of CSIR. The Programmes are structured around two initial years of coursework, including formal coursework in first two semesters; one Project Proposal & one Review Article writing in the third semester; and CSIR-800 project in fourth semester; generally followed by three years of research.

## ELIGIBILITY CRITERIA

### 1. Ph.D in Engineering

Candidates with a Master's degree in Engineering/ Technology/ Pharmacy with a good academic record or with a Master's degree in Sciences with a good academic record and with a valid GATE score or UGC/CSIR NET/NBHM or valid CSIR-SRF or equivalent fellowship or Bachelor's degree in Engineering/Technology with exceptionally good academic record and having a valid GATE score

having keen interest in research in various disciplines in Engineering.

### 2. Integrated Ph.D in Engineering

Candidates having following qualifications are eligible to apply:

- B.E./ B.Tech+GATE/ NET (Engg)
- B.E./ B.Tech+2-year experience as PA/ CSIR SRF/ Industrial Candidates
- B.E./ B.Tech or M.Sc. + National level fellowship/ Ranked first in University

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.

## ADMISSION PROCESS

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

Short-listed candidates for the programme 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 date of interview at different laboratories/ 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
Ph.D Engineering	20*	12	Completion of thesis	4 Sems	4 years	5 years

## INTEGRATED Ph.D (ENGG.) (DIRECT Ph.D) FOR CANDIDATES WITH:

<b>BTech + Gate/NET</b>	36	24 (M.Tech level) + 4 (Ph.D level)	Completion of thesis	4 Sems.	5 Years	6 Years
<b>BTech + 2 Year experience as PA/CSIR-SRF/ Industrial Sponsored Candidates</b>	28	16 (M.Tech level) + 4 (Ph.D level)	Completion of thesis	3 Sems.	5 Years	6 Years
<b>BTech or MSc + National level fellowship/ Ranked first in University</b>	36	24 (M.Tech level) + 4 (Ph.D level)	Completion of thesis	4 Sems.	5 Years	6 Years

\* 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	Category	Programme Fee per annum (INR)	Thesis Submission Fee (INR)
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.

## EVALUATION PROCEDURE & GRADING SCHEME

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:

Letter Grade	Performance	Numerical Value
<b>A+</b>	Outstanding	10
<b>A</b>	Excellent	9
<b>B+</b>	Very Good	8
<b>B</b>	Good	7
<b>C+</b>	Average	6
<b>C</b>	Not Qualified	5
<b>S</b>	Satisfactory (for Thesis)	
<b>X</b>	Unsatisfactory (for Thesis)	

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:

- 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 needs to score CGPA of 8.0 or above.

### FELLOWSHIP

Generally, the admission is for the candidates who have tenable National Eligibility based Fellowship, and Candidates will obtain fellowship as applicable. However, some labs may offer fellowships from other sources. Please visit respective lab advertisement in this regard.

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INTERESTED CANDIDATES MAY APPROACH THE FOLLOWING LABORATORIES FOR FURTHER DETAILS:

Research Labs	Name of the CSIR Lab	Website (http://)
CSIR-4PI	CSIR Fourth Paradigm Institute, Bangalore (Formerly, Central for Mathematical Modeling and Computer Simulation)	www.cmmacs.ernet.in
CSIR-AMPRI	Advanced Materials and Processes Research Institute, Bhopal	www.ampri.res.in
CSIR-CBRI	Central Building Research Institute, Roorkee	www.cbri.org.in
CSIR-CCMB	Centre for Cellular & Molecular Biology, Hyderabad	www.ccmb.res.in
CSIR-CDRI	Central Drug Research Institute, Lucknow	www.cdriindia.org
CSIR-CECRI	Central Electrochemical Research Institute, Karaikudi	www.cecri.res.in
CSIR-CEERI	Central Electronics Engineering Research Institute, Pilani	www.ceeri.res.in
CSIR-CFTRI	Central Food Technological Research Institute, Mysore	www.cftri.com
CSIR-CGCRI	Central Glass & Ceramic Research Institute, Kolkata	www.cgcric.res.in
CSIR-CIMAP	Central Institute of Medicinal & Aromatic Plants, Lucknow	www.cimap.res.in
CSIR-CIMFR	Central Institute of Mining and Fuel Research, Dhanbad	www.cimfr.nic.in
CSIR-CLRI	Central Leather Research Institute, Chennai	www.clri.nic.in
CSIR-CMERI	Central Mechanical Engineering Research Institute, Durgapur	www.cmeri.res.in
CSIR-CRRI	Central Road Research Institute, New Delhi	www.crridom.gov.in
CSIR-CSIO	Central Scientific Instruments Organisation, Chandigarh	www.csio.res.in
CSIR-CSMCRI	Central Salt & Marine Chemicals Research Institute, Bhavnagar	www.csmcri.org
CSIR-HQ	CSIR Head Quarters and its other units	www.csir.res.in
CSIR-IGIB	Institute of Genomics and Integrative Biology, New Delhi	www.igib.res.in
CSIR-IHBT	Institute of Himalayan Bioresource Technology, Palampur	www.ihbt.res.in
CSIR-IICB	Indian Institute of Chemical Biology, Kolkata	www.iicb.res.in
CSIR-IICT	Indian Institute of Chemical Technology, Hyderabad	www.iictindia.org
CSIR-IIIM	Indian Institute of Integrative Medicine, Jammu	www.iiim.res.in
CSIR-IIP	Indian Institute of Petroleum, Dehradun	www.iip.res.in
CSIR-IITR	Indian Institute of Toxicology Research, Lucknow	www.iitrindia.org
CSIR-IMMT	Institute of Minerals and Materials Technology, Bhubaneswar	www.immt.res.in
CSIR-IMT	Institute of Microbial Technology, Chandigarh	www.imtech.res.in
CSIR-NAL	National Aerospace Laboratories, Bangalore	www.nal.res.in
CSIR-NBRI	National Botanical Research Institute, Lucknow	www.nbri.res.in
CSIR-NCL	National Chemical Laboratory, Pune	www.ncl-india.org
CSIR-NEERI	National Environmental Engineering Research Institute, Nagpur	www.neeri.res.in
CSIR-NEIST	North East Institute of Science & Technology, Jorhat	www.neist.res.in
CSIR-NGRI	National Geophysical Research Institute, Hyderabad	www.ngri.org.in
CSIR-NIIST	National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram	www.niist.res.in
CSIR-NIO	National Institute of Oceanography, Goa	www.nio.org
CSIR-NISCAIR	National Institute of Science Communication and Information Research, New Delhi	www.niscair.res.in
CSIR-NISTADS	National Institute of Science, Technology and Development Studies, New Delhi	www.nistads.res.in
CSIR-NML	National Metallurgical Laboratory, Jamshedpur	www.nmlindia.org
CSIR-NPL	National Physical Laboratory, New Delhi	www.nplindia.org
CSIR-OSDD	Open Source Drug Discovery, New Delhi	www.osdd.net
CSIR-SERC	Structural Engineering Research Centre, Chennai	www.serc.res.in
CSIR-URDIP	Unit for Research & Development of Information Products, Pune	www.urdip.res.in

## USEFUL LINKS FOR FURTHER INFORMATION

Online applications and further information about studying at AcSIR

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



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