



Academy of Scientific &  
Innovative Research

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



**Ph.D & Direct Ph.D**  
**in Engineering**

# Ph.D & Direct 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 2,500 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 PROGRAMS

The programs equip students to undertake interdisciplinary research by providing a broad-based practical training in best in the class national laboratories of CSIR. The Programs are structured around academic coursework (as per program requirement) and mandatory courses viz. one Project Proposal & one Review Article writing; and CSIR-800 project; and research leading to Ph.D degree.

## 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.

Project Assistants, Senior Research Fellows and CSIR Scientists as per AcSIR Ordinance No. 3.6.2.

### 2. Direct 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 program. Their continuation in the program will be subject to securing required percentage/ equivalent grade (depending on the cut-off marks for screening for the specific program) 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. 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 merit/ 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.

Reservation shall be applicable as per GoI rules.

## ACADEMIC REQUIREMENTS

Program	Min. Total Credits	Min. Credits thro' coursework	Credits thro' Research/ Project	Min. Residence Period #	Normal Period of Completion #	Max. Duration of Completion
<b>Ph.D (Engg.)</b>	20*	12	Completion of thesis	4 Sems	3 years	5 years
<b>Direct Ph.D (Engg.)</b>	32	20 (M.Tech level) + 4 (Ph.D level)	Completion of thesis	4 Sems (3 Sems for PA/CSIR-SRF with 2 yr. exp.)	5 years	6 years

\* Two 4 credit courses are mandatory as per the following:

- One Review Article and One Project Proposal by selecting topics of high relevance and novelty, and will have state-of-the art review, methodologies, recommendations etc. (2 credits each). This needs to be completed before submission of thesis.
- 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.

## PROGRAM FEE STRUCTURE

Program	Category	Program Fee per annum (INR)	Thesis Submission Fee (INR)
<b>Ph.D</b>	Regular	12,000	5,000
<b>Direct Ph.D</b>	Regular	12,000	5,000

### Note:

- Hostel Boarding and Lodging Charges shall be as applicable.
- The above tuition fee is applicable to Foreign Nationals also.

## EVALUATION PROCEDURE AND 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>	Fair	6
<b>C</b>	Poor	4
<b>F</b>	Very Poor	2
<b>I</b>	Incomplete*	0
<b>S</b>	Satisfactory (for Thesis)	
<b>X</b>	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:

- **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.

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

## 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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