



Integrated M.Tech-Ph.D Programme (Post Graduate Programme in Engineering)



2013 Session



Academy of Scientific and Innovative Research (AcSIR)

Anusandhan Bhawan, 2, Rafi Marg, New Delhi – 110 001

<http://acsir.res.in>

CSIR and AcSIR invite applications for the 2+3 years full -time residential **Integrated M.Tech-Ph.D (Post Graduate Research Programme in Engineering)** programme of Academy of Scientific and Innovative Research (AcSIR) in the cutting-edge technological areas. Candidates who are working professional in Industry or working in Industry Sponsored Projects and sponsored by the same Industry/Project Sponsoring Organisation can apply for the programme. The salient features of the programmes are given below:

S. No.	Coordinating Laboratory	Programme	Essential Qualification (BE/BTech or equivalent)	Number of Seats
1.	Central Building Research Institute (CSIR-CBRI) Roorkee 247667 http://www.cbri.res.in	Building Engineering and Disaster Mitigation	Civil engineering / Construction Engineering / Building science and technology	6 TS (UR-3, SC-1, ST-1, OBC-1) 4 QHF, NET Engg., GATE-JRF, Project Sponsored, Industry Sponsored
2.	Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani – 333 031 http://www.ceeri.res.in	Advanced Electronic Systems	Electronics/Electrical/ECE/EIE/EEE, Instrumentation, Engineering Physics, Radio Physics, Computer Sc./Engg, Mechatronics, Mechanical	6 TS (UR-1, OBC12, ST-1; UR-PH(OH)-1; OBC-PH(OH)-1) 14 NET Engg. & Gate JRF
3.		Advanced Semiconductor Electronics	Electronics/Electrical/ECE/EIE/EEE, Instrumentation, Engineering Physics, Radio Physics, Computer Sc./Engg, Mechatronics	
4.		High Power Microwave Devices and System Engineering	Electronics/Electrical/ECE/EIE/EEE, Instrumentation, CS/Eng, Engineering Physics, Radio Physics, Mechanical/Mechatronics	
5.	Central Glass and Ceramics Research Institute (CSIR-CGCRI), Kolkata – 700032 http://www.cgcrici.res.in	Glass and Ceramic Engineering	Ceramic Technology / Ceramic Engineering / Metallurgical Engineering / Materials Science / Materials Engineering / Chemical Engineering / Mechanical Engineering / Production Engineering / Polymer Engineering / Biomedical Engineering / Optoelectronics	3 NET Engg. & 3 GATE JRF
6.	Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad 826015 http://www.cmriindia.nic.in	Mine Safety Engineering	Mining/ Mechanical/ Electrical/ Production/ Civil/ Instrumentation/ Electronics/ Chemical Engineering or equivalent	5 TS (UR-2, OBC-2, ST-1) 2 NET Engg., 2 GATE-JRF, 1 Industry Sponsored

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7.	Central Mechanical Engineering Research Institute (CSIR-CMERI), Durgapur – 713 209 http://www.cmeri.res.in	Applied and Computational Mechanics	Mechanical, Aerospace, Chemical and Civil Engineering	5 NET Engg. & 2 GATE JRF
8.		Mechatronics	Mechanical, Electrical, Comp. Sc./Engg, Mechatronics, Electronics/ECE/ETC/EIE, Radio Physics & Electronics, Production, Manufacturing	5 NET Engg. & 2 GATE JRF
9.	Central Road Research Institute (CSIR-CRRI) New Delhi 110020 http://www.crridom.gov.in	Transportation Engineering	Civil and Construction	4 TS (UR-2, SC-1, OBC-1), 2 QHF, 1 NET Engg., 1 GATE JRF & 1 Sponsored Candidate
10.	Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh-160 030 http://www.csio.res.in	Advanced Instrumentation Engineering	All major branches of Engineering	9 TS (OBC-6, SC-2, ST-1 including PH-3 (OH-1, HH-1, VH-1)) 10 NET Engg., 3 GATE JRF, 3 Sponsored Candidate
11.	Indian Institute of Petroleum (CSIR-IIP) Dehradun – 248 005 http://www.iip.res.in	Advanced Automotive Technology	Mechanical Engg	3 NET Engg. & GATE JRF & 2 Sponsored Candidate
12.		Advanced Petroleum Science and Technology	Chemical Engg	5 NET Engg. & GATE JRF
13.	National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur- 440 020 http://www.neeri.res.in	Environmental System Engineering and Modeling	Civil, Chemical, Environmental, Electrical, Mechanical	2 NET Engg. & 3 GATE JRF
14.	National Metallurgical Laboratory (CSIR-NML), Jamshedpur – 831007 http://www.nmlindia.org	Materials & Metallurgical Engineering	Materials & Metallurgical Engg, Metallurgical Engg; Materials Engg; Mineral Processing, Chemical Engg.	10 TS (UR-5, OBC-2, SC -1, ST-2), 4 QHF, 7 NET Engg., 5 GATE JRF, 12 Sponsored Candidates
15.	National Physical Laboratory (CSIR-NPL) New Delhi-110012 http://www.nplindia.org	Advanced Materials Physics and Engineering	Materials Science, Metallurgy, Engineering Physics, Electrical, Electronics/ECE/EIE/EEE, Ceramics, Mechanical, Radio Physics	15 NET Engg./ GATE JRF
16.	Structural Engineering Research Centre (CSIR-SERC), Chennai – 600 113 http://www.serc.res.in	Engineering of Structures	Civil	30 NET Engg., & GATE JRF & 1 Sponsored Candidate
17.		Renewable Energy	All major branches of Engineering	10 NET Engg., & GATE JRF & 1 Sponsored Candidate

About the Programme

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

- (i) M.Tech programme (2 years) consisting of four-semester and
- (ii) Ph.D programme (3 years) after successful completion of M.Tech will be decided on a case-by-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?

- ◆ There are up to **204 positions** out of which, **40 are for Trainee Scientists (TS)** position of CSIR. The selection for the positions of **Trainee Scientists** across the participating labs will be as per the policy of CSIR including the reservations policy as per Gol norms.

In addition, on successful completion of the M.Tech with distinction, the Trainee Scientists (TS) **may be** considered for absorption in CSIR as Scientists in Pay Band-3 of the Government of India (Scale Rs. 15600 - 39100/- with Grade Pay of Rs. 6600/- plus other allowances as applicable) based on the selection procedure of CSIR and depending on the vacancies available in the participating CSIR laboratory.

- ◆ In addition there are **Quick Hire Fellow positions** available for meritorious candidates for which Quick Hire Fellowships may be used by the individual CSIR laboratories.
- ◆ **NET Engineering and 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-EMR for completing the M.Tech and Ph.D. programs.

- ◆ Apart from above categories as above, meritorious candidates from the Industries/ Industry Sponsored Projects may also be enrolled for the programme at AcSIR as **Industry/ Project Sponsored Candidates**. Such candidates shall contact the CSIR lab of interest and should receive *a-priori* 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 organisation 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 remain a residential student for the first two semesters to complete the coursework.

Medium of Instruction

The medium of instruction and examination will be English.

Eligibility Criteria

Engineering Graduates with minimum 70% marks or 7.0 CGPA are eligible to apply. The age of the candidates should not be more than 28 years as on July 01, 2013 for admission to the programme. For reserved category, age relaxation as per Govt. of India rules will be followed. A valid GATE score will be considered as an added advantage.

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 subjected 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, 2013.

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 performance/ 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 centres on the dates announced. Details of interview centres will be posted on the AcSIR website (<http://acsir.res.in>) in due course.

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.

Financial Support/Fellowship

Trainee Scientists (TS) shall receive an emolument of approximately Rs.34,650/- p.m. plus allowances as applicable at CSIR.

Fellowship for **QHF Candidates** will be consolidated Rs. 25,000/- per month for first two years during their M.Tech programme. After successful progression to Ph.D in third year, such candidates shall apply for Senior Research Fellowship (SRF) of CSIR or they may receive fellowships from sponsored

projects of the respective CSIR laboratories or some other sources.

NET Engineering qualified and GATE (JRF) candidates will obtain stipend (JRF) as applicable, from CSIR-Extra Mural Research (CSIR-EMR) for completing M.Tech. However, they can continue with their fellowship (likely to be enhanced) for completing Ph.D.

Programme Fee Structure

The fee structure for M.Tech part of programme in the year 2013-14 will be as follows:

For Regular Candidates:

One-time Admission Fee (non-refundable):	Rs. 4,000/-
One-time Security Deposit (refundable):	Rs. 6,000/-
Semester Tuition Fee (non-refundable):	Rs. 24,000/-
Hostel Boarding and Lodging Charges:	As applicable

For Industry/Project Sponsored Candidates:

One-time Admission Fee (non-refundable):	Rs. 4,000/-
One-time Security Deposit (refundable):	Rs. 6,000/-
Semester Tuition Fee (non-refundable):	Rs. 48,000/-
Hostel Boarding and Lodging Charges:	As applicable

Total amount of Rs. 34,000/- for regular candidates and for sponsored candidates an amount of Rs. 58,000/- needs to be deposited at the time of admission. Subsequently, only the semester fee of Rs. 24,000/- (for Regular Candidates) or Rs. 48,000/- (for Sponsored Candidates) needs to be deposited, as the case may be, before the start of every semester.

Hostel boarding and lodging charges need to be paid separately as per the applicable norms and rules/guidelines in force of the participating CSIR laboratory conducting the programme.

Refund of Fees

Students wanting to withdraw from the programme after deposition of fees and security amount will need to apply in writing for refund. If such an application is made on or before August 07, 2013 at the concerned CSIR laboratory, refund of fees/other charges will be made after deducting the admission fee amount of Rs. 4,000/-.

No refund of fees/other charges will be made if the student leaves after joining the programme except for the security deposit / caution money amount of Rs. 6,000/-.

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:

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

Important Dates

Milestone	Date
Commencement of Online Application Process:	April 18, 2013
Last date of Online Application Process:	May 16, 2013
Screening of Applications	May 17 to June 02, 2013
Intimation to Shortlisted Candidates (Electronic)	June 03, 2013
Interviews	June 27-29, 2013
Declaration of Results	July 11, 2013
Last date of submission of Program fees	July 31, 2013
Admission from Waiting List	August 01-07, 2013
Enrolment	August 08, 2013
Beginning of Session	August 09, 2013