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## HUMAN RESOURCE DEVELOPMENT

### AcSIR Ph. D. Programme at CSIR-IITR

Ph.D. programme in Biological Sciences and Chemical Sciences, under the aegis of the Academy of Scientific & Innovative Research (AcSIR), at Indian Institute of Toxicology Research (IITR), is aimed at maximizing the number of qualified as well as skilled researchers and professionals of impeccable quality in the domain of biological/chemical sciences to facilitate seamless interdisciplinary research and innovation. AcSIR-IITR Ph.D. programme strives to create highest quality personnel with cross- disciplinary knowledge in order to provide leaders in the field of toxicology and associated technology and to develop niche capability required to bolster research efforts in futuristic science by focusing on imparting instruction and providing research opportunities in such areas as are not routinely taught in regular academic universities in India. This programme offers exciting opportunities to Masters degree holders (with a valid fellowship such as UGC/CSIR-NET/DBT/ICMR/DST-INSPIRE or any other equivalent fellowship) having a keen sense of scientific enquiry, for pursuing advanced research in the frontier areas of Biological and Chemical Sciences.

As part of this Ph.D. programme, students are expected to acquire a total of 20 credits (12 credits from the course work, 4 credits from Project proposal and Review Article writing and the remaining 4 credits from CSIR-800 project related work) prior to submission of their thesis and subsequent award of degree. In the August 2013 session of AcSIR-IITR Ph.D. programme, following courses were offered in Biological Sciences: Biostatistics, Computation/Bioinformatics, Basic Chemistry, Research Methodology, Communication/ethics/safety, Biotechniques/Instrumentation, Xenobiotic Interaction and Response, Stem cells, regeneration and aging, Seminar Course, Target organ toxicity and Genes and Environmental Diseases besides meticulous project and review article work. Similarly, Research Methodology, Analytical Tools and Instrumentation, Advanced Organic Chemistry, Advanced Analytical Chemistry, Thermodynamics and Statistical Applications, Organic Spectroscopy Applications and Mass spectrometry applications were taught to the students enrolled for Ph.D. in Chemical Sciences along with thorough project/review article work.

Thirty-six scientists have been recognised as faculty of AcSIR-IITR till March 2014 (Assistant Professors – 14, Associate Professors – 5, Professors – 16, Outstanding Professor – 1). Nine students were enrolled in the August 2013 session of AcSIR and an additional six students were enrolled during the January 2014 session thus taking the total tally of students inducted into the AcSIR-IITR Ph. D. programme up to March 2014 to eighty two.

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These students, coming through a rigorous selection process, are the major work force of the institute carrying out research work in areas of national/international importance and societal relevance for their Ph.D. under AcSIR Ph.D. programme.

During the last financial year, twenty five students have been registered for Ph.D. after successful completion of their comprehensive examinations. One student, Mr. Alok Kumar Verma, submitted his thesis after acquiring the necessary 20 credits. In addition, Ms. Gulshan Singh has successfully defended her thesis and was awarded the degree in the Convocation ceremony held at Chennai on March 24, 2014. The time taken from thesis submission to award was three months. Furthermore, fifteen students completed their course work while thirty others finished their project/review article writing.

Keeping in mind the ultimate objective of inclusive growth by helping in improving the quality of life of people, AcSIR has mandated that the students aspiring to obtain a Ph.D. degree from the academy undertake a 6-8 weeks project concerned with societal/ rural issues under the CSIR-800 programme. Towards this direction, seven AcSIR-IITR students visited rural areas for disseminating information and creating awareness on problems prevailing in the society thereby fulfilling their credit requirements (20 credits).