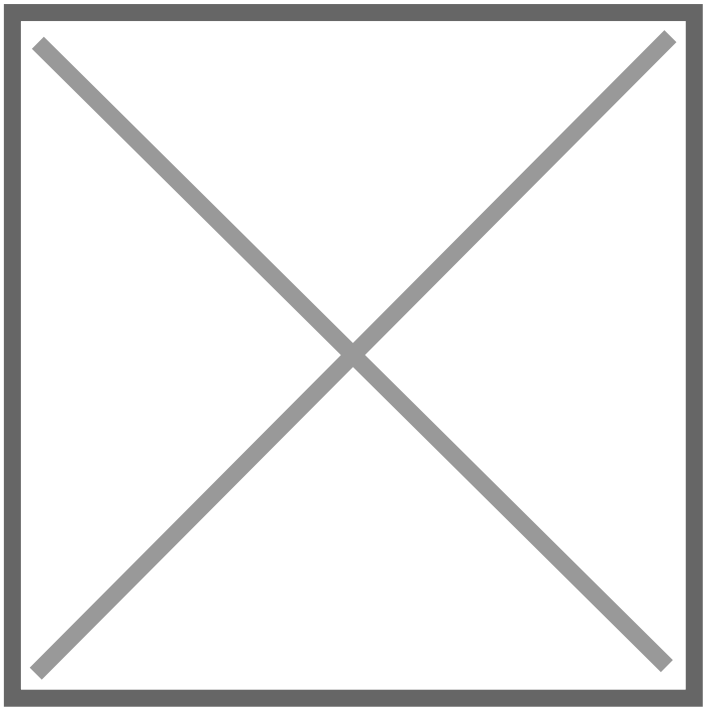
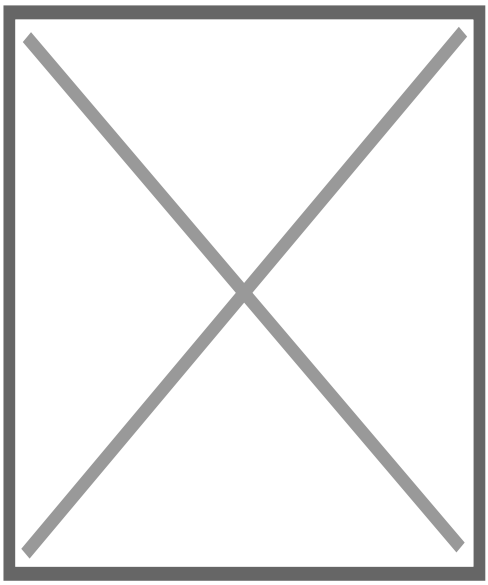
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05 August 2009 | News



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Excels in industry interaction

School of Bioengineering at SRM University ranks third on infrastructure score and fourth on industry interaction score. It creates an excellent environment of academic freedom, where bright minds meet, discover and learn.

School of Bioengineering at SRM University offers BTech biotechnology, postgraduation in biotechnology and PhD programs.

The department has 17 independent laboratories, equipped with state-of-the-art equipment for microbiology and immunology, biochemistry, molecular biology, genetic engineering, plant cell and tissue culture, animal cell culture, bioprocess technology and downstream processing.

The department works with other departments, national and international industries and R&D institutions to develop expertise in molecular biology, metabolic engineering, protein engineering, immunology, biotransformations, biodegradation, plant biotechnology, animal biotechnology, marine biotechnology, enzyme technology, bioseparations, biosensors, bioprocess engineering, pharmaceutical biotechnology and many other fields.

The department has good relationship with the industry. The institute has concentrated towards the empowerment of its graduates with globally competitive skills for employability. In this regard, the institute is supported by an international advisory board for biotechnology, represented by Prof. CR Lowe of Institute of Biotechnology, Cambridge, UK, and a corporate advisory board for biotechnology is represented by prominent leaders in the industry.Â

Ã¢â?¬Å?We allow the industry to train our studentsÃ¢â?¬?

-Dr K Ramasamy, dean, School of Bioengineering, SRM University

What are the new modules you have added to align your education with industry needs?

In the second year, we identify the student's strength and interest, and provide them with eight structured add-on elective courses. Besides the credit course, the students are provided with industrial training, industrial visit and need-based industrial site and project execution training. We allow the industry to train our students based on their requirements through specially designed course content and hands-on-training in which the industry's representative offer the course as a visiting faculty.

Hence the department delivers the students requirement from second year to final year to promise a good career after graduation. Our center for institute-industry-initiative co-ordinates this activity through designated faculty of the department.

We provide a unique platform for our students through an open interaction with students, industry and young prospective students from plus-2 level along with the project presentation by our BTech and MTech students.

What are some of the research projects that the students or faculties have initiated?

To avoid duplication and wastage of resources our students and faculties work on focused research and the initiates taken by them include biofuel cell,Â community structure and metagenomics of methanogenic environment, oil synthesizing genes associated with jatropha and its sequencing, algal biofuel, and converting cellulose to ethanol. Parallel externally-funded projects provide additional support for such initiatives. The University of Queensland provide the model and support for the fuel cell part and towards the development of decentralized energy production for villages and small scale industry.

We have a basic study to unravel the action of neuro-endocrine system in aging and the metabolites and functions are monitored using specific cell line. Secondary plant metabolites with pharmaceutical importance is investigated with four known medicinal plants for diabetics and arthritis through plant tissue culture and cell suspension culture. To enrich this, molecular detection and biosensors are developed in association with the Penn State University.

Environmental biotechnology is another important area where we rope in the industry and governmentÂ support in bioremediation of heavy metals, sequestration of radionuclei and biotransformation of toxic insecticides and metabolites. This research area is further supported by our nanotechnology center and medical college to develop a nano filter for odour removal from the contaminated atmosphere. All these focused activities will provide solutions for local problems and enhance the knowledge base in science and technology.

Did the school received any funding recently?

This academic year we have received two major supports from the DST-FIST and Ministry of Food Processing for infrastructure development. We have received support from DST, DBT, CSIR and ICMR for nine individual scientists, ranging from young scientist award, project support to networked projects. Private industrial support for research is also attracted from Noni Research Foundation, Ramvijai Biotech, Ashok Leyland Biofuel, IVC Labs and Medical Research Labs. All amounting to Rs 5.28 crore. Our university also supports pilot projects, collaborative and international projects to the tune of Rs 3.5 crore from the trust funds.

What are the faculty focused initiatives taken by the university?

We have faculty training programs abroad. Through this program Dr Wilkinson Santhosh was deputed for two months to the US for research training in cancer immunotherapy at the University of Central Oklahama. Dr K Suda is undergoing training for a year in the University of Minnesota for the development of molecular kit. Two young assistant professors were deputed for summer courses in the University of Punjab and National Toxicological Research Center, Lucknow. Four faculties underwent teacher update from Central Technical Teacher Training Institute at Taramani. Two faculties were deputed for state-of-the-art fuel cell training at the Queens University.

Seven faculties are supported for part-time doctoral program. One candidate is deputed for FIP.

Best teacher award and cash award for publication (Rs 5,000 for national and Rs 10,000 for international publication in peer reviewed journal). Special incentive are given for the staff who supported the student to excel in curricular and co-curricular activities. In-house training for the new faculty, special instrument handling short courses and equipment supplier supported trainings are also given.

What is the institute doing to familiarize the students with industry?

Industrial training, industrial visit and all India tours are included in the curricular activity. In addition, special arrangements are made to invite corporate leaders, managers and industrial researchers to interact with the students. Center for Industry-Institute-Interaction co-ordinate and link the industry for project work and research linkages. Industry is allowed to involve in all curriculum planning and execution. Further overseas instrument manufacturers and industrialists are encouraged to address the students, interaction and counsellings are organized frequently. We have a separate corporate advisory body for the department and the university.

What percentage of your students on an average get placed in biotech companies after post-graduation and how many prefer to go for higher studies?

This is an area which cannot be answered straight. Majority of students clearing BSc and MSc in biotechnology, and BTech are differentiated by a different training and career. Vast majority register for campus placement and simultaneously try for higher studies. Majority get direct entry into PhD (86 from SRM biotech). Part of them join the industry or software company in life science stream and quit after they get fellowship. About 50 percent student pay their own tuition fee with bank loan and manage to get fellowship or assistantship after one semester.

As a group they select management program in UK or Europe. With self employment possibility, a few select Scandinavian countries for integrated higher studies with industrial support. Few get luxurious studentship, fellowship and tuition fee waiver to tune $120,000 per year.

Jahanara Parveen