

JIGNYASA 2018-19 REPORT

Event

Intercollegiate Research Meet and Poster Presentation organized by the Department of Biotechnology, The Past Students' Association and 'JIGNYASA' – Research Hub at SIES College of Arts, Science and Commerce, (Autonomous), Sion (West), Mumbai on Friday 21st December 2018.

Categories

- Pure and Applied Sciences
- Commerce and Management
- Humanities and Languages
- Agriculture and Animal Husbandry
- Engineering and Technology

Theme/Topic

No particular theme/topic, any original research work/ idea/ innovation/ concept/ research review

Poster Size

1 metre x 1 metre printed or handmade (sketching/ painting/ drawing) on any material (flex/ card paper/ cloth/ ordinary paper) (Working Model if required could also be displayed along with the Poster)

Awards and Prizes

Dr. Rajalakshmi Amudan Award for the best research presentation in the field of Pure and Applied Sciences was instituted by the Past Students' Association as a tribute to a great teacher who took time to care and shape the future of many students. This award comprised a certificate, cash prize, and a trophy. The winners and runners up for all other categories received trophies, prizes and certificates. All participants received certificates of participation.

Objectives

Research Hub – 'Jignyasa' serves as a platform/ forum to encourage research scholars/ students to participate, discuss and share their views on ideas, concepts, research articles, research papers, book reviews, current affairs among others. It also enables a healthy interaction amongst faculty and students representing different disciplines thereby inculcating an interdisciplinary/ cross disciplinary approach in pursuing higher education.

Purpose and Rationale

The relevance of this forum is to inspire and motivate students especially undergraduates to be innovative, creative, explore topics/ subjects beyond the curriculum, stimulate 'out of box' thinking, brainstorm over ideas/ concepts, propagate the news of current scenario in different fields, etc.

Proceedings for the day

The number of entries exceeded our expectation. We received 39 undergraduate entries for Pure and Applied sciences and 28 postgraduate entries for the same field. The number of entries for Engineering and Technology was 6 in the undergraduate faculty, 3 undergraduate entries in the field of Agriculture and Animal Husbandry, 9 undergraduate entries for Humanities and Language and lastly 1 entry for the field of Commerce and Management.

Inauguration

The event was inaugurated by Principal Dr. Uma Shankar, Dr. Surekha Zingde, President IWSA, Navi Mumbai along with members of the Amudan family. The conveners briefed the audience about JIGNYASA and its objectives. The key note address was delivered by Mr. Sujith Nair, Research Scientist, Emcure Pharma Ltd. who is also an alumnus of the Department of Biotechnology. He impressed upon the students the importance of integrity in research. The second speaker for the day was Dr. Mandar Gupte, Executive Director, DK Biopharma Pvt. Ltd. He spoke in detail on the need for innovation and how innovation and entrepreneurship go hand-in-hand. The session concluded with a few members of the audience delivering anecdotes that revived memories of the contributions made by Dr. Rajalakshmi Amudan.

Post lunch session

Later, after lunch and once the judges had made their rounds through the presentations, we had five speakers who shared their very unique research developments. These were:

Mr. Dnyaneshwar Kamble, M.Tech from IIT Madras with work experience within the Tata Group across domains like Telecom, Automation, Smart City, Business Intelligence, Sustainability and Utilities.

He is a Board member of the Institute of Electrical and Electronics Engineers (IEEE), that produces over 30% of the world's literature in the electrical and electronics engineering and computer science fields through peer-reviewed journals and conferences and events. It also offers educational opportunities such as IEEE eLearning Library, a collection of online educational courses designed for self-paced learning.

He is a Co-founder of Ready2innovate Worldwide, a not for profit company committed to help inventors with IPR awareness and guiding for commercialization of their inventions globally. As an expert in Intellectual property management and IP risk reduction, Mr. Dnyaneshwar Kamble while addressing the audience of Jignyasa emphasized that most students/ young innovators are unaware of IPRs and patenting, and hence are unable to reap the innovation economy/ product driven economy.

The next speakers of the post lunch session were **Ms. Debasmita Mondal and Mr. Sourabh Agrawal**, Research Scholars at the Department of Biosciences and Bioengineering, IIT Bombay and are awardees of the Gandhian Young Technological Innovation (GYTI) Award for their unique invention of a smartphone-based impedimetric disposable biosensor for detection of heart attacks, under the guidance of Prof. Soumyo Mukherji.

The innovative sensor can be a life-saving device in a country like India where cardiovascular disease is one of the leading causes of death. It can detect cardiac biomarkers - chemicals released during a heart attack - using a tiny sensor, whose values can be read with a smartphone giving results in 10-15 minutes, and is a cost effective and pocket friendly device.

Mr. Sourabh in his talk at SIES shared his life's journey where he mentioned that he was always inquisitive about things around him which has helped him achieve success in his work.

The third party of speakers **Mr. Rohit Pawar and Mr. Prashant Upadhaya** are Research Scholars at Institute of Chemical Technology (ICT), Mumbai and are awardees of the Gandhian Young Technological Innovation (GYTI) Award for their novel developments with social relevance.

Mr. Prashant Upadhaya has tried the prevention of HIV problem associated with unintended pregnancy and unprotected sexual intercourse by developing a NanoSpermViricide gel. This gel is a combination of HIV-1 inhibitor with non-hormonal contraceptive for simultaneous prevention of HIV-1 infection and unintended pregnancy.

Mr. Rohit Pawar has developed a Point of Care Nano Diagnostic Kit for Brucellosis known as immunochromatographic diagnostic kit (ICDT) based on fluorescence silica nanosensors for detection of intact Brucella antibodies in non-serological samples. Brucellosis, a neglected global zoonotic infectious disease is transmitted to humans through consumption of unpasteurized dairy products and direct contact with afflicted animals. The developed kit holds its industrial application in agricultural, biotechnological and pharmaceutical arena.

All the speakers had an impact on the young innovators (students) present at Jignyasa by their inspiring talks and their individual share of work that has contributed to the greater good. They all left a common message that *curiosity (Jignyasa)* keeps leading us to new paths creating opportunities for ourselves, that keeps us going on, a truth of success.

The talk session was followed by the prize distribution ceremony where the prizes were decided after a lot of brainstorming by the judges. The **Dr. Rajalakshmi Amudan Award** was presented by the members of the Amudan family.

Impact and Relevance

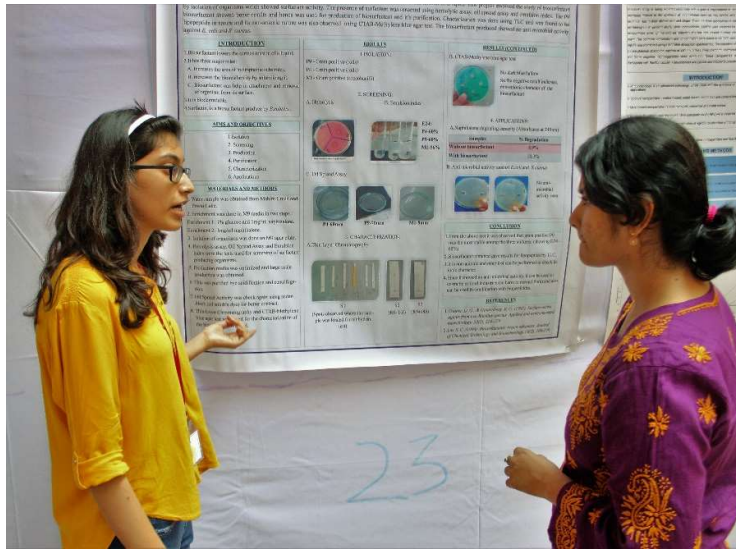
This entire event had a good impact on everyone who attended it. It was an experience for students to showcase their research and presentation skills. It made some of them interested in research and motivated them to enhance their creative skills. The objective was to enable a healthy interaction amongst faculty and students representing different disciplines, thereby inculcating an inter-disciplinary/ cross disciplinary approach in pursuing higher education, and to a certain extent this was fulfilled.











Conveners

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