## Mumbai University GIAN and related activities Report 2016-18

Over 20 courses have been submitted to MHRD-GIAN by Mumbai University of which 12 courses were successfully conducted between the years 2016-2019. The GIAN projects submitted by MU encompassed various disciplines including languages like French, Linguistics, Sciences (Physics, Nanotechnology, Mathematics) as well as Interdisciplinary courses.

A course titled 'Shift from Innovation-focused to Systemic Innovativeness' was widely appreciated by the students. Students of pure sciences built wooden bridges and learnt about the social elements in innovation: the role groups, systems, interactive activities play in germinating and generating innovations and were also exposed to hands on doodle workshop

The cosmopolitan atmosphere at Mumbai University witnessed attendance of multi lingual students in science for a course titled " From lightning to climate: a survey of thunderstorm effects on the atmosphere" As their final task in the GIAN program, they made and translated a lightning-safety brochure to their respective local languages (Hindi, Gujarati, Marathi and Avadhi) and disbursed them to their native villages. India suffers hundreds of annual casualties due to lightning strikes and awareness about the same could help save them.

At the end of course, Prof. Yair gave a public lecture on the legacy of the **Columbia shuttle mission**, on board which an Israeli astronaut (Col. Ilan Ramon) and an India-born astronaut (Dr. Kalpana Chawla) performed the Mediterranean Israeli Dust Experiment (MEIDEX) in 2003. Prof. Yair (The GIAN faculty) was a scientist and project manager on that ill-fated mission. The young students were more than thrilled to learn about this mission and asked numerous questions.

The GIAN course in French (Jan 2018) is to culminate into a publication of French and francophone stories in Marathi and Hindi as well as the translation of Indian short stories in French.

The host faculty of Mathematics has initiated a new collaboration with the international faculty and was invited to KTH Sweden as a part of a new collaboration after the GIAN course

Discussions were held on common problems of interest in the field of Light Front Hadron Physics and a joint project has been planned between the host faculty and the faculty of North Carolina State University. The course on Magnetic Nanomaterials also resulted in a joint research collaboration between MU and NSU, Singapore culminating in a research publication in an international journal of repute.

The course submitted in the area of Linguistics by the MU faculty was widely appreciated by the GIAN reviewing committee with a compliment that this course would be extremely useful to graduate students and also to linguistics faculty and that it is not often that they will get the opportunity to be taught by a linguist of Prof. Veneeta Dayal's eminence.

A Nano-EI project was developed as an out-come of faculty interactions during the GIAN program by the coordinator. The project titled 'INTERNATIONALISED MASTER DEGREE EDUCATION IN NANOELECTRONICS IN ASIAN UNIVERSITIES (Nano-EI) has been sanctioned by Erasmus+ and is a collaboration of seven different Universities, from Israel, Italy, Bulgaria, China, India, Malaysia, Norway with an objective to let each partner university to develop course/s in their area of specialization or other related area so that they could be shared online among the partner institutes. The aim was not to create complete master degree program but to develop courses which can be integrated in an existing program if need be at partner universities.

The bigger idea behind the project was to let universities develop courses in their field of expertise and build a repository of online courses that all partner universities can use/share and also learn from each other how to produce educational content that can be used online. The project was sanctioned from December 2016 and of the grant of approximately 43 lakhs received by Mumbai University for the same

It is of no doubt that the GIAN program has enabled the MU faculty as well as students to reach new heights. It has allowed international experts to understand the potential of our faculty establishing newer and stronger collaborations.