## MY GLORIOUS YEARS AT IIT BOMBAY

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At the start of the academic year 1960, the Department of Mathematics had three faculty members: Profs. M. N. L. Narasimhan (incharge), Shivanandan Singh, and L. V. K. V. Sarma. All of them had the designation of "Lecturer". They were supported by Research Assistants and Associate Lecturers. I joined the Department in July 1960 as a Senior Research Assistant. At that time, the Department was located in what was called the TCS building, which was like an aircraft hanger partitioned into different units.

It is important to note that in those days, the country had internationally renowned scientists, mathematicians and statisticians in many universities, notably those at Madras, Bombay, Calcutta, Allahabad. All these universities had 50–100 years of British legacy. Also, eminent persons were working at TIFR, ISI Calcutta and IISc Bangalore. In spite of these facts, the country did not have a large enough cadre of teachers with post-graduate degrees to fill the large number of posts created in the four IITs established during 1958-1960. To overcome these constraints, the department of Mathematics at IIT Bombay set up a 5-year M.Sc. programme in 1968 with Lecturers, Assistant Professors and a couple of Professors. Most of them worked in various areas of mechanics. The departments of Physics, Chemistry and Mathematics were allowed admissions to the M.Sc. programmes through the Joint Entrance Examination (JEE). Prof M. N. Vartak put in tremendous efforts to strengthen the programme with application oriented courses in statistics, queuing theory, information theory, coding theory etc.

Years later, in 1995, the department started an M.Sc. (Applied Statistics and Informatics) programmme to provide students with a wide range of electives for specializing in statistical aspects of informatics.

From the year 1968, admissions of research students were made regularly, and departmental faculty members supervised their Ph.D. theses. About forty students obtained doctoral degrees by the year 2000.

Outline of a talk given at the Diamond Jubilee Symposium of the Department of Mathematics at IIT Bombay on January 4, 2019.

In the engineering departments, M.Tech programmmes failed to attract B.Tech students as they preferred to pursue Post graduate programmes abroad. To attract our own B.Tech. students to the M.Tech. programmes, the senate asked Post Graduate Programmes Committee to examine the whole scenario. As Dean (Academic Programmes) and Convenor of the Post-graduate Programme Committee (PGPC), I had to coordinate with all engineering and science departments. I had admirable support from our department, notably of Prof. B. V. Limaye. The PGPC recommended starting a Dual-Degree programme, in which a student would be admitted for two degrees (B.Tech. and M.Tech.) in the beginning itself, and both degrees would be granted simultaneously at the end of the fifth year. Each department would provide various specializations for the M.Tech. part of the programme. This integrated the semesters 7, 8 and 9 very well.

In the beginning, Electrical Engineering, Mechanical Engineering and Chemical Engineering departments of IIT Bombay started their Dual-Degree programmes. Then other engineering departments at IIT Bombay followed suit. Subsequently, other IITs also introduced Dual-Degree programmes. These programmes have become very successful.

The Institute provided various facilities to its residents, notably many play-grounds, weekly screening of movies, swimming pool etc. There were centralized facilities for milk, vegetable market, book stall etc. The KG school, the Central School and the Campus school enabled residents to let their children complete their schooling within the campus. The children could use the central library facilities. Boys and girls who qualified in the Joint Entrance Examination could seek permission to stay at their homes (instead of hostels) to pursue IIT education. The residents enjoyed all campus activities including religious and cultural activities. All of them took part in these activities cutting across regional and linguistic diversities.

My entire family feels that our long stay in IIT Bombay was enjoyable and memorable.

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