



---

## Editorial – 175 Years of Engineering Education at IIT Roorkee

---

IIT Roorkee is celebrating 175 years of engineering education in India during 2021-22. A pioneering Educational Institution in India and in the entire British- Empire, it started as Roorkee Civil Engineering College in 1847, renamed Thomason College of Civil Engineering in 1854 and rose to become the first University of technical education in free India (University of Roorkee) in 1949 after celebrating its centenary. The life of the Institution (UoR) as a university spanned for over five decades when it was converted into an IIT on 21<sup>st</sup> September, 2001 by an ordinance issued by the government of India declaring it as 7<sup>th</sup> IIT, renaming it from University of Roorkee (UoR) to the current name Indian Institute of Technology Roorkee (IIT Roorkee). The ordinance was converted to an Act by the Indian parliament to make IIT Roorkee as an "Institute of National Importance".

In celebrating the Demisemiseptcentennial (175) year of the IIT Roorkee, one is not only celebrating the One Hundred Seventy-Five Years of the Institute, but indeed also the teaching of Civil Engineering and the beginning of technical education in India. It is truly a momentous occasion and for all those associated with the Institute in any capacity, a great privilege to be basking in the reflected glory of its achievement.

In the year 1845, R. Baird Smith, a distinguished military engineer and a Senior Irrigation officer posted on the eastern Yamuna Canal, proposed to the Lieut-Governor of the North-West provinces Sir James Thomason during his visit to Saharanpur that a school to train surveyors and draftsman for ongoing construction work of Ganga Canal project be opened in Saharanpur. James Thomason immediately approved the proposal as it was in the line of his own thinking because the construction of Ganga Canal had already started in 1842. The pace of the work proposed for construction between Hardwar and Kanpur caught high momentum only in 1847 when the Governor-General Sir Henry Harding visited the site of the Solani aqueduct and on the pressing recommendation of James Thomason, sanctioned the vigorous execution of the work. Roorkee at that time was merely a collection of a few mud huts on the ridge overlooking the Solani river. The aqueduct being the most challenging piece of work on the canal, it became the centre of intense engineering activity. It was then that James Thomason proposed the establishment of College of Civil Engineering at Roorkee to train engineering personnel at various levels for the public works of the country. Thomason's proposal had the general support of Col. Proby Cautley, Baird Smith and Baker, the three prominent military engineers working in the field of irrigation in the Ganga-Yamuna area at that time. The Saharanpur school started in the year 1845 had a short time, as after two years of its function, on a large extended scale was taken over by Roorkee Civil Engineering College. It was like a sapling nurtured at Saharanpur for two years before being transplanted to Roorkee.

The Roorkee College prospectus was issued on 25<sup>th</sup> November, 1847 and the college started functioning with effect from 1<sup>st</sup> January, 1848 offering courses in Civil engineering at three levels: for engineers, Overseers and Sub-overseers for public works. Six students were admitted to the college for their training as Civil Engineers for construction of Ganga Canal. In 1854, the college was renamed as " Thomason College of Civil Engineering" in the memory of its founder Sir James Thomason after his untimely demise.

After 102 years of magnificent journey, Thomason College was elevated to the status of a university in recognition of its past performance and its potential keeping in view the needs of free India on 25th November, 1949. Since its establishment as the first technical University of the country, the UoR played vital role in providing technical manpower and know-how to the nation and in the pursuit of research, the University of Roorkee ranked among the best Engineering Institutions of the world and made significant contribution to all the sectors of technological advancements.

The University completed 150 years of its authoritative existence in November, 1997 and the sesquicentennial year celebrations started in November 1996 with a grand ceremony of felicitations of diamond, golden and silver jubilee alumni on the inaugural day of Sesquicentennial year. An International Conference on Civil Engineering for sustainable development was organised by the Department of Civil Engineering as a part of its activities in the sesquicentennial year. Besides a "Special Lecture Series" were also organised in which distinguished academics from diverse specialities in Civil Engineering from USA, Canada, Australia and UK were invited to deliver lectures on a subject of their areas of expertise and interest, which were well received by the students and faculty. The beginning and the end of the sesquicentennial year saw two important developments when the Information Superhighway Centre (ISC) and the Department of Management Studies (DMS) were started in 1996 and 1998 respectively.

The 'fate' of this great Institution of learning (as a university) again took a major turn after 154 years when UoR was converted to an IIT exactly 21 years ago on 21st September, 2001 and thus the Institute entered the 175th glorious year, which is a major landmark in the life of an Institution. Even today this 175 years old great "grandpa" appears to be as energetic and enthusiastic as a 21 years old young man carrying lots of dreams for the welfare of the society and the world as a whole...!!

The celebration of 175<sup>th</sup> year (1847-2022) of the Institute in imparting technical education and contribution started from November 25, 2021 and will continue till November 24, 2022. Different academic, cultural, sports, outreach activities have been planned by the students, faculty, staff and alumni during the year of celebration. It is the occasion to celebrate, to review its activities and to introspect and rededicate to the cause of maintaining and enhancing the high reputation established by the Institute as a premier centre of teaching and research.

The alumni of this Institute have held positions of great importance in India and abroad. The "stamp" of Roorkee alumnus has been found practically in every major engineering project of the country during last 125 years or more. The Civil Engineering Department of the Institute also pioneered research, consultancy and education in Rock Mechanics and underground space technology during last five decades.

The important research works on Rock Engineering has been carried out under the leadership of Late Prof. Bhawani Singh (an alumnus of UoR - BE, ME & Ph.D.). The rock mechanics committees of Bureau of Indian Standards have been deeply involved in preparing BIS codes in close association with the geotechnical group of Civil Engineering Department of IIT Roorkee for over last four decades or so.

Prof. Bhawani Singh (the founder Chairman of the Editorial board of JRMTT) along with Dr. R. K. Goel (An alumnus of IIT Roorkee - MTech. in Applied Geology, and the Editor of JRMTT since 1999) have co-authored five books on Rock Mechanics, Underground Technology and other related areas published by the Elsevier Science Ltd and A.A.Balkema.

The motto of IIT Roorkee is: "श्रमं विना न किमपि साध्यम्" means " Nothing can be achieved without hard work.." and this has been truly followed by the faculty members and the students of the Institute.

The faculty of the Institute has always remained in the forefront by exploring new areas and provided guidance in the frontal areas. It is hailed as one of the best and outstanding Civil Engineering educational complexes in the world, with glorious past traditions, a strong and confident present and a very reassuring and dynamic future. Prof. K. V. Mittal in his book entitled " The History of Thomason College" has rightly described about the glorious past of the Institution. He writes:

"There are in the world far bigger and greater centres of scientific and engineering education. In India, there are many Institutes of comparable standard, but few of comparable history; many which turn out large numbers of young engineers and scientists, but few which leave such an abiding sentiment for itself in their hearts."

I, on behalf of the editorial board and my own behalf wish IIT Roorkee a hearty congratulations on the great occasion of 175 years long and magnificent journey...!!!  
May our Alma Mater live long.....

***Dr. Subhash Mitra***  
(An Alumnus of IIT Roorkee, Ph.D., 1991)  
*Chief Editor, JRMTT*