

## **Uniqueness of IIT Hyderabad & Recent Initiatives**

IIT Hyderabad (IITH), established in 2008, is ranked 8<sup>th</sup> (NIRF) among the Eng. institutions in the country for the third consecutive year, after the 7 first generation IITs, and ranked among the top 8 Indian Engineering institutes in the QS World Rankings-2022. This year we have also bagged 7<sup>th</sup> rank in national ARIIA rankings, crossing two of the First Gen IITs (KGP and G), for the first time in one of the National rankings. IITH has been striving for excellence passionately with a motto of Inventing and Innovating in Technology for Humanity (IITH). The unique features of IITH and the recent initiatives are captured below.

### **Until July 2019**

IITH has acquired a unique place among the Engineering institutes in India with fractal academics (the first IIT to introduce it), BTech in AI (the first Indian institute and globally the third institute to start a UG program in AI), BTech in Engineering Sciences. It also offers flexibility to students with an opportunity of double major and a minor in Entrepreneurship. It also has unique departments such as Design, Liberal Arts, AI and Climate Change, the last two being virtual departments. With ~2870 students (~910 PhD students), ~200 faculty and ~160 staff, IITH has been the vibrant in research with about ~3740 Scopus publications (up to Dec 2019), ~950 projects worth of Rs. ~280 Crores, ~130 patents and 10 startups. In 2019, IITH enjoyed an NIRF ranking in Engineering of 8 and overall ranking of 22, QS Asia ranking of 198, India ranking of 16 (8<sup>th</sup> among Engineering Institutes in India). Established Centre for Healthcare Entrepreneurship (CfHE) for medical innovations, FabCI for unique fabless chip design, ITiC, an incubation cell for start-up support and a Research Park. Strong partnership with Japan (JICA), to support campus infrastructure and research at IITH, collaboration through the FRIENDSHIP program.

### **Initiatives from Aug 2019 – Nov 2021**

#### **Statistics:**

- 3900+ students (1100+ PhD students), 250+ faculty and 270+ staff.
- 6600+ Scopus publications, 1620+ projects worth of Rs. 575 Crores, 195 patents and 100+ startups.

#### **Academics:**

- Started BTech in (a) Biomedical Eng., (b) Biotech. & Bioinformatics, (c) Computational Eng. (d) Industrial Chemistry
- Revised the curriculum and introduced a semester-long internship in all branches of BTech (6th semester, from Jan-July) to do internship in industry, work on their own start-ups and visits abroad.
- Established Entrepreneurship & Management department.
- Established Centre for Continuing Education.
- Set up Centre for Interdisciplinary Programs and introduced ID MTech programs such as Additive manufacturing (supported by DRDO); Energy science & technology; E-waste resource engineering & management (jointly with CMET, Hyderabad); Integrated sensor systems; Polymers & biosystems engineering; Smart mobility (supported by TiHAN); Medical device innovation (jointly with AIG, Hyderabad).
- CSE dept. started MTech programs Networks & information security. Entrepreneurship & Management dept. started a Dual degree MTech in Techno-Entrepreneurship for our BTechs.
- Introduced online MTech programs such as EV Technology, Computational Mechanics, Integrated Computational Materials Engineering (ICME), Industrial Metallurgy, Microelectronics & VLSI, and MDes, for the benefit of industry personnel.
- Introduced a mandatory course on “Industry Lectures” for MTech students.
- Started ensuring that at least 50% of MTech projects are on industry defined problems.
- Waived residential requirement for PhD, for industry professionals to reach out to industry.
- Done away with Branch change option in BTech Program.
- Introduced several Sanskrit courses in curriculum to explore ancient treasures of India.
- Established Academic Advisory Committee (AAC) to accelerate the academic reforms.
- Established a Cell for Indian Knowledge Systems.

**Research:**

- IITH-DRDO Research Cell has been established. 13 projects worth of Rs. 19 Crores sanctioned under the Cell in the first round.
- A Centre of Excellence (CoE) in Additive Manufacturing (Rs. 50 Crores) has been approved by DRDO. CoE on Medical Devices (Rs. 15 Crores) sanctioned by ICMR and a CoE on Transportation (Rs. 10 Crores) sanctioned by NHAI.
- Technology Innovation Hub on Autonomous Navigation (TiHAN) under DST NMICPS has been established with the first Testbed for autonomous navigation in an Indian academic institute.
- India's first NVAITC (NVIDIA AI Technology Center) has been established.
- Started ID PhD program with 20 fellowships to begin with. Significant increase in number of PhD students from 230 in 2020 to 370 in 2021.
- Seed grant for new faculty increased to Rs.25 lakhs.
- Research Equipment Maintenance Fund (REMF) created for each faculty from R&D projects.
- Established a Rural Development Centre and started funding projects for rural development.
- A high-performance computing (HPC) facility with 800 Teraflop capability established.
- Centre for Research and Innovation in AI (क्रिया) established. The Data Centre has been expanded.
- Space for Research Park (TRP) and Incubation Park (TIP) with 150,000 sft each, will be ready soon.
- Strong research support to students through BUILD projects.
- Effective utilization of research facilities has been achieved through slot booking using a web portal.
- New startup support programs started (NMDC, BEL, Nidhi Prayas, Nidhi Accelerator). Helped startups raise Rs. 10 Crore in equity and grants (additional Rs. 15 Crore in commitment stage).
- Patent filing support started (Rs. 20,000 for Indian patent and Rs. 1,00,000 for overseas patents).
- Faculty Research Excellence awards established.
- Quarterly Newsletter "KirIITH" has been started and 8 issues have been brought out so far on the cutting-edge research being carried out at IITH. The issues so far are dedicated to Covid-19, AI, Healthcare, IITH-Japan collaboration, 5G & NextGen Communications, Nanotech and Energy.
- Established Research Advisory Committee (RAC) to support faculty and students.
- Departmental Advisory Committees are being set up to aid in the growth of departments.
- Postdoc fellowship for 6 months introduced for PhD students, who submit thesis in 4.5 years.
- Cyient Chair in Future Communications, the first Chair at IITH, has been established. TiHAN has established the second Chair.

**International:**

- Second phase of FRIENDSHIP program with JICA sanctioned.
- IITH-NIMS (Tsukuba, Japan) Research Centre has been established.
- Introduced PhD Fellowship for International Research Scholars in Technology (FIRST) to attract bright overseas students to do PhD at IITH with a fellowship of Rs. 60,000 pm.
- Established unique Joint Doctoral program with Swinburne University of Technology and Deakin University, Australia, to attract best PhD students.

**Other initiatives:**

- Annual Alumni Awards have been initiated in 2020 and the second round held on November 28, 2021.
- Staff Excellence awards and Employee of the month awards initiated.
- First Saturday of every month has been identified as Plantation Day, which resulted in planting more than 15,000 plants with more than 100 varieties of species. Drip irrigation for all plants is being set up.
- A 24x7 Clinic/Pharmacy and a Specialty Clinic with consultants from Continental has been established.
- A comprehensive Solid Waste Management scheme has been established on the campus.
- A supermarket, Amul and Nescafe outlets have been set up on campus. A Food Court is expected to be started in the campus in January 2022.
- A G+6 storied precast block has been built (336 capacity) for first year BTech students.
- CBSE recognition obtained to the campus DAV school along with a new School building (G+2).
- Post office set up on campus with an exclusive PIN for IITH (502284).
- The compound wall on the National Highway side is completed with boom barriers at entry and exit. Beautification of entrance space is in progress and will be completed soon.
- MSME and BT & BME buildings have been inaugurated. Research Park will be inaugurated soon.