The Department of Artificial Intelligence (AI) at IIT-Hyderabad was established in 2019 to offer academic programs and mould students with a **holistic understanding of the theory and practice of Artificial Intelligence**, as well as to create a complete ecosystem for both academic practice and research in AI. The mission of the department is to enable and facilitate students to become leaders in the AI industry and academia nationally and internationally; as well as to meet the pressing demands of the country in the various sub-areas and applications of AI. While AI has historically remained a topic studied inside departments such as Computer Science or Electrical Engineering, the creation of this new department at IIT-Hyderabad (only such in the IIT system at this time) allows us to **bring together AI knowledge from multiple perspectives**: Computer Science and Engineering, Electrical Engineering (topics such as signal processing and control theory), Mechanical Engineering (topics such as robotics), Mathematics, Biomedical Engineering (topics such as computational neuroscience), Design (topics such as Human-Computer Interaction), as well as Liberal Arts (topics at the intersection of AI, Ethics and Human Impact) into unified program offerings.

The AI department at IIT-H launched the **_BTech in AI program in 2019, the first such initiative in India, and the third in the world (to our knowledge) after MIT and CMU_**. The undergraduate program brings together the aforementioned perspectives, as well as now includes opportunities for meritorious students to embark on 6-month internships during the program, which can count for their credit requirements after a suitable evaluation of the work carried out. Our BTech program has resulted in many other similar programs across the country, and the department has helped many other institutions design their curricula for similar undergraduate programs. The presence of an AI department also allows students from other departments at IIT-H to pursue a **minor in AI**, along with their major discipline. This opportunity allows students to learn to connect AI to their own disciplines, a trend that is fast spreading in the industry in applying AI to problems in various domains ranging from structural engineering to drug discovery.

In addition to the undergraduate program in AI, the department also offers **post-graduate degrees include MTech and PhD in AI**. While a specialization in AI is offered in several institutions in India currently at an MTech level, a PhD program in AI is less available. Our PhD in AI program was created with two reasons in mind: (i) to open up opportunities in PhD-level research in AI to a wider group of candidates who may have basic academic training in different areas but have strong mathematical foundations (e.g. a student from a statistics or an applied physics background in their previous education); and (ii) to engage with and provide opportunities to professionals in the Indian industry, considering a recent increasing interest in AI research and practice. We hope that our efforts in this regard will bear fruits in the years to come.

In addition to the above programs, the AI department, in collaboration with CSE and EE departments, also offers a unique **Professional Program in AI and Emerging Technologies, a fully residential summer program** offered in collaboration with TalentSprint to anyone in the country. This program seeks to overcome the limitation that the education imparted by the IIT system in the country only reaches a select set of individuals. By opening up the 5-week residential program to any interested student, we hope that the students can learn from the department's expertise in AI, as well as experience the culture in an IIT campus, and take home lessons that can be further shared with their peers and colleagues.

The AI department at IIT-H currently consists of ~**25 faculty working in various areas of AI** including machine learning, computer vision, speech understanding, natural language processing, social media analysis, robotics, signal processing, high-dimensional data analysis, distributed AI, compilers for AI, and embedded AI. It also includes faculty at the intersection of AI and other disciplines such as AI and IoT, AI and blockchains, AI and wireless networks, as well as AI and design. From an application standpoint, faculty associated with the AI department have been involved in projects conducting research and development of AI solutions for healthcare, smart transport, security and surveillance, agriculture, disaster management, fraud analytics, e-commerce, astronomy and aerospace applications. Faculty in the AI department have close collaborations with various industry, academic and government organizations on AI research including DRDO, CAIR, University of Tokyo, RIKEN AIP, Microsoft Research, IBM Research, NVIDIA, Accenture, Honeywell, Adobe, L V Prasad Eye Institute, and many others.

The department is at the cusp of the **establishment of a state-of-the-art AI Centre**, which is funded by the support of Honeywell and the Japan International Cooperation Agency. The computing facilities at the AI Centre includes NVIDIA DGX-1s, DGX-2s - widely considered AI supercomputers - as well as other GPU-based servers for cutting-edge research. The department also recently entered into a **close collaboration with NVIDIA to establish an NVIDIA Artificial Intelligence Technology Centre (NVAITC), India's first such initiative**, that allows researchers at IIT-H to work closely with engineers at NVIDIA to collaboratively solve problems of social impact. An article on the department website, https://ai.iith.ac.in/news/July-2020-NVIDIA-establishes-Indias-first-NV-AI-Centre-at-IIT-Hyderabad.html, provides more details on this new partnership. Faculty in the AI department also actively contribute to mentoring deep tech startups in AI at the newly founded AISEA (AFI i-TIC Foundation Social Entrepreneurship Accelerator), set up jointly by AFI and i-TIC Foundation of IIT Hyderabad and sponsored by the Department of Science and Technology, Government of India, to promote social entrepreneurship by leveraging contemporary technologies. The department is actively engaged with the Government of Telangana, in its declaration of 2020 as the Year of AI, and recently embarked on a close **collaboration with NASSCOM on the Telangana AI Mission** on AI for Agriculture.

We believe that this is a humble beginning, and that the department can scale greater heights in the years to come, in charting new paths in AI pedagogy and research. We invite you to visit our website, https://ai.iith.ac.in/, to know more about us and our efforts in this regard, and look forward to forging more meaningful and impactful collaborations in the years to come.

Overall Rank 17th

Engineering Rank 8th

IIT Hyderabad had a fabulous journey so far in the National Institutional Ranking Framework (NIRF). In the first edition of NIRF, IITH secured 7th rank in the engineering category. In the subsequent editions of NIRF, we maintained 10th, 9th, 8th and 8th rank respectively in the engineering category. The overall ranking was introduced by NIRF in the year 2017 and IITH was ranked 26th. In the subsequent two years, we improved our overall rank to 22, and in 2020, we further improved our overall rank to 17. In fact, within NIRF, IITH is the only second-generation IIT that consistently made into the top 10 engineering institutes in the country.

IITH's score on some parameters such as faculty-student ratio, faculty qualification, financial resource utilization, patents, and footprint of projects, are comparable or higher than some of the older generation IITs. The financial support to IITH by JICA and the collaboration with Japanese Universities definitely played a critical role in the research output of IITH. A large number of state-of-the-art research instruments under the JICA support are being procured and installed at IITH. These facilities will help the scholars at IITH to perform research that cuts across the boundaries of conventional engineering and science departments. With further expansion in the campus infrastructure and an increase in the number of students and faculty members, IITH is certain to climb up the ladder of science and engineering education in the country.

IITH enjoys a public perception score that is comparable to that of some of the older IITs. The second generation of IITs had the enormous advantage that they sailed on the brand IIT that was created by the old 5 IITs. However, today IITH is a brand of its own. This achievement is merely due to the sheer hard work of the students, staff, faculty members and the vision of the torch bearers of this institute and more importantly our alumni. With new and interdisciplinary academic programs that are need of the hour, IITH is destined to attract a pool of highly talented students and faculty members. Recently, IITH started a Centre for rural technology development. This new Centre and the new academic programs are going to open the doors to more and more interdisciplinary research that will have a high impact and relevance in solving the technological problem that the country is facing today. We are in the process of building an institute that will set an example of academic and research excellence.

IITH has been also ranked among Top 10 institutes in the country by QS World University Ranking.