

TECNIA INSTITUTE OF ADVANCED STUDIES

NAAC Accredited Grade 'A' Institute

Internal Quality Assessment Cell
IQAC

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-: Thrust Areas:-

Industry 4.0 demands smart systems integrated with intelligence to have a better human-machine interface. To cope up with the upcoming emerging industrial demands, the technical institutes are to be tuned to educate and train their students to meet the upcoming requirements of the industrial revolution. AICTE, as a polestar of the technical education system of the country, in the recent past has emerged as a guiding force to guide the technical institutions of the country to transform them with time. The curriculum design of nine emerging area started as envisaged by All India Council for Technical Education (AICTE) to National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, the institute had to take a lead in creating industry-ready IT professionals in these nine subjects. The NITTTR, Chandigarh has already initiated training programmes in the areas like Industry 4.0, Block Chain, Cyber Security, Robotics and Internet of Things (IoT). Realizing the strength and initiative for the institute and set a target to prepare the industry- ready curriculum for the country in these nine areas. Industry experts were contacted, R&D experts were invited and academicians from the institutes of national importance were requested to participate in the series of curriculum workshops conducted for the said purpose, while discussing in workshops, teams were advised to follow the principle of incorporating the contents needed by the industry. More emphasis was given on MOOCs and platform like SWAYAM to be used for meeting the pre-requisites rather than making it part of main course contents. The team with experts from industry, R&D and academia, in series of discussions, convinced the contents which are important and incorporated in curriculum for the nine emerging Thrust Areas:

This timely joint initiative of All India Council for Technical Education (AICTE) and National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, is expected to bring translational skills among the students of undergraduate programmes to meet the expectations of the industry. The Department was set up with an aspiration to generate IT compliant manpower, with the ability to take on challenges and fare forward in the realm of ICT. The Curriculum is further enhanced with value additions and designed to cater to the ever changing demands of ICT, with the necessary inputs from the Industry and AICTE recommendation of the committee chaired by Chairman of Cyient, Chairman- IIT, Hyderabad, Representation of NASSCOM, CII, HYSEA, ELIAP, PHD Chamber and other Industrial body which prepare the perspective plans of ICT education in India and recommends following discipline / courses (Thrust Areas) must be promoted.

The Department of ICT has highly qualified & experienced faculty who excel in their respective areas. The Department of ICT also encourages enrolling the faculty and the students for the research work in various thrust areas of information & communication technology. The department of ICT aspires to produce individuals equipped to contribute for progress at all levels: individual, national and global, which are as under:-

- Artificial Intelligence
- Internet of Things (IoT)
- Block chain
- Robotics
- Quantum Computing
- Data Sciences
- Cyber Security
- 3D Printing & Design
- Augmented Reality (AR)/ Virtual Reality (VR)

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