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AICTE's committee recommends edu course for engineering faculty

S MANNAR MANNAN @ Coimbatore

A high-level committee formed by the All India Council for Technical Education (AICTE) to prepare national perspective plan for engineering education has recommended mandatory certification, or diploma or degree in education for the faculty members working in engineering colleges.

The committee in its report said the poor employability of engineering graduates is reflecting poorly on the faculty shortage and quality and pedagogy.

Competencies of the faculty need to be developed, especially in the areas of new age technologies and research through rigorous faculty development programmes. Training of existing teachers at Teachers Training Institutes, using quality improvement programs (QIP) and using IIT/ NIT faculty and infrastructure, are some of the immediate interventions, recommended the committee, which was headed by IIT Hyderabad chairman B V R Mohan Reddy.

Apart from this, the committee also recommended focused industry visits for faculty for hands-on exposure to the latest technologies. "Analytical tools should be used to understand the impact of various teaching methods and identify the best methods of executing course work and apprenticeship - tightly integrate apprenticeship with pedagogy. Apprenticeship should be made mandatory on industry and also progressively mandatory on educational institutions," the committee suggested.

'Will take some time'

All India Federaton of Self Financing Technical Institutions secretary TD Eswaramoorthy said, "Currently we have tech education teachers training institutes only in 6 places across India including one in Chennai. So, it will take some time for implementation."

The committee also recommended that across all engineering disciplines, courses in emerging technologies should be made part of the curricula and made mandatory for Computer Science, Electrical, and Electronics Engineering. Specifically, we recommend introducing Under Graduate Engineering programs exclusively focused in AI, IoT, Blockchain, Robotics, Quantum Computing, Data Sciences, Cyber Security, 3D Printing and Design, AR/VR, the report said.

"We put greater focus on multi-disciplinary Engineering courses, especially in Computational Biology, Biotechnology, Biomedical, Mechatronics, Space, Aerospace, Agriculture, and Environmental Engineering, by reducing the seats in conventional disciplines and converting some of the existing seats into these areas," the committee said in its report.