

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
Nelson Mandela Road, Vasant Kunj, New Delhi 110 070

Minutes of the 148th Emergent Meeting of the Executive Committee held on January 13, 2022 at 11.00 am in the Board Room, Second Floor, Wing 1, at AICTE Headquarters, Nelson Mandela Marg, Vasant Kunj, New Delhi:

Following Members were present in the meeting:

1.	Prof. A.D. Sahasrabudhe Chairman, AICTE	Chairman
2.	Prof. M.P. Poonia Vice Chairman, AICTE (Connected through Video Conferencing)	Member
3.	Shri Pradeep Kumar Pandey Deputy Director (HE/TE) Ministry of Education, Govt. of India, New Delhi (Connected through Video Conferencing)	Nominee, Secretary, MoE, GOI, New Delhi
4.	Prof. A. P. S. Rathore, Chairman, Northern Western Regional Committee, (NWRC), AICTE (Director, MNIT, Jaipur) (Connected through Video Conferencing)	Member
5.	Prof. (Dr.) T. G. Sitharam, Chairman, Eastern Regional Committee, (ERC), AICTE (Director IIT Guwahati) (Connected through Video Conferencing)	Member
6.	Dr. Manoj Tiwari, Chairman, All India Board of Under Graduate Education Research & Technology (UGET) (Director, National Institute of Industrial Engineering [NITIE], Mumbai, Maharashtra) (Connected through Video Conferencing)	Member
7.	Prof Shreepad Karmalkar, (Chairman All India Board of Post Graduate Education Research & Technology (PGERT) AICTE (IIT-Madras, Chennai, EEE Dept.) (Connected through Video Conferencing)	Member
8.	Dr.S.K.Dubey, Deputy Director Training and Technical Education Department, Delhi (Connected through Video Conferencing)	Nominee, Secretary (TE) Govt. of Delhi
9.	Prof. K N Raval, Deputy Director, Directorate of Technical Education, Gandhinagar, Gujarat (Connected through Video Conferencing)	Nominee, Secretary (TE) Govt. of Gujarat
10.	Dr. Usha Natesan Director, NITTTTR, Chennai (Connected through Video Conferencing)	Member
11.	Dr Venkappayya Desai, Dept. of Civil Engg. IIIT, Kharagpur (Connected through Video Conferencing)	Member
12.	Prof Praveen Nahar, Director, NIT, Hamirpur, Himachal Pradesh (Connected through Video Conferencing)	Member

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13.	Prof. Lalit Kumar Awasthi, Director, NIT, Hamirpur (Connected through Video Conferencing)	Member
14.	Dr Avichal Kapur, Joint Secretary, UGC, New Delhi (Connected through Video Conferencing)	Nominee, Chairman UGC
15.	Prof. Rajive Kumar, Member Secretary, AICTE	Member Secretary

Chairman, AIB – Management Studies, Director IIM Trichy; JS & FA, MoE, New Delhi; Secretary (TE/HE) Govt. of Assam; Secretary (TE/HE) Govt. of Karnataka; Director General, NILERD (former IAMR); Director General, ICAR could not attend the meeting due to their prior engagements.

At the outset, Prof. A.D. Sahasrabudhe, Chairman, AICTE welcomed all the members to the 148th emergent meeting of the Executive Committee. He informed the members about the urgent nature of agendas being placed in today's meeting,

The members were informed about the comments received from IFD, MoE on the Agenda. The following Agenda Items were taken up for consideration, deliberations and decisions taken as under:

Item No. 148.01.01 Admin Bureau	:	To consider and approve the recommendations of Selection Committee held on 7 th December, 2021 for Group "A" post (on deputation basis).
		The Executive Committee was informed that out of 05 vacancies advertised, 03 candidates have been selected. The EC approved the decision of the Selection Committee vide the interview / meeting held 7 th December, 2021 for Group "A" post for selection of candidates to the post of Director, Pay Matrix Level 13, Rs. 123100-215900 (as per 7 th CPC) on deputation basis as follows-
		<u>Selected Candidates:</u> 1. Dr. Juhie Agarwal 2. Dr. Amit Dutta 3. Dr. Dinesh Singh
		The Executive Committee decided that the panel of candidates would be valid for a period of one year from the date of interview.
Item No. 148.01.02 P&AP Bureau	:	To consider and approve the recommendations of the Committee to review Moratorium on "AICTE Approval to New Engineering Institutions from Academic Year 2022-23 onwards"
		The Executive Committee was informed that AICTE put a moratorium on opening new institutions in traditional areas of Engineering & Technology at Degree, Diploma and PG Level from 2020-21 onwards for two years in 2019. Further, the EC was informed that a committee was constituted in Oct, 2021 for "Reviewing Moratorium on Approval to New Engineering Institutions from Academic Year 2022-23 onwards" under the chairmanship of Shri BVR Mohan Reddy who was also the Chairman of the Committee to review the moratorium in the year 2019. After detailed deliberations and assessing future technical manpower needs of the country, submitted its report on 31.12.2021.

The Executive Committee deliberated, considered and approved the recommendations of the Committee to review Moratorium on "AICTE Approval to New Engineering Institutions from Academic Year 2022-23 onwards for two years", as Annexed to the Agenda, highlighting the major contents of the report as follows:

1. Undergraduate(B.Tech) Programmes:

- **New institutions:** Moratorium on new engineering institutions should continue barring a few exceptions mentioned in the Report:
 - a. AICTE may allow well-meaning philanthropists, educationists or educational foundations to create new institutions of excellence. Such institutions should create a capacity of 3000 seats in line with NEP 2020 guidelines. Further, these institutions should have large owned campus and student amenities comparable with that of globally reputed institutions. AICTE may suitably frame the financial and infrastructure requirements for creating such institutions. These should offer core and interdisciplinary courses with emphasis on emerging technologies and employable skills, have collaborations with reputed foreign educational institutions, partner with corporates, and gain an NIRF ranking of <100 in the first five years and <50 in 10 years of their founding.
 - b. As per Government of India guidelines, every aspirational district in the country (220 of them) should have an engineering college. Currently, only 180 districts are covered. The State governments be given the flexibility to start engineering colleges in the remaining 40+ districts. The State governments must provide necessary budgets for infrastructure, faculty and labs before seeking approval to set up an engineering college in districts that do not have one.
 - c. **Facilitate conditional capacity creation in existing institutions:** While the situation of low enrolments is concerning, continuing a blanket ban on new capacities may be detrimental to the future sustenance of quality engineering education. It will be prudent to facilitate limited and conditional capacity creation based on the following guidelines: It is observed that a few institutions have reported more than 100% enrolments in 2021. A number of institutes have reported >80% enrolments. It would be prudent that extra capacities be permitted to institutions with good NIRF ranking (<100) that have reported >80% enrolments last three years as below:
 - i. 95-100+% enrolments – additional capacity of 25% be permitted
 - ii. 80-95% enrolments – additional capacity of 15% may be permittedColleges that have more than 50% of enrolment should be allowed to start new courses in emerging technologies within their existing capacity. At the same time, the capacity

in core engineering disciplines such as mechanical, electrical, electronics and civil engineering cannot be reduced by more than 50% of the approved capacity. Address the demand-supply imbalance through supply-side corrections. In the existing installed capacity, we need to shift focus to quality education to enhance foundational skills and industry-linked internships.

- **Digital technologies:**

Digital technologies should become integral to curricula across all engineering disciplines. A minor in digital technologies may be offered for all the disciplines. Programmes in digital technologies at UG level have limited visibility in the industry. Focus on faculty training, blended learning, projects and industry internships is necessary to improve specialised skill talent. Capacities in four-year programmes in digital technologies should be reviewed and modulated on an annual basis keeping the industry needs and skill shortages in view.

- **New Disciplines & Specialisations**

Introduce new disciplines that are industry-relevant - Communication and Security Engineering, Manufacturing Engineering (additive, subtractive, 3D printing, etc), Transport Engineering, Energy Engineering, Information Engineering, Public Health Engineering (water, environment, pollution, sewage etc), Healthcare Engineering, Computational Engineering, Environmental Engineering, Geomatics/ Geospatial science & technology/ Geoinformatics, etc (indicative list, not exhaustive). Some of these could be made available at masters' level. Thematic undergraduate programmes in Circular Economy, Sustainability, Environment, etc.

- Introduce new specialisations - Microelectronics and VLSI, smart mobility, EV technology, Transportation, Highway engineering, Renewable Energy, Climate Change, Earth System Sciences, Future Communications especially 5G, Sustainable Development & Circular Economy, Waste Management, Product Design, AI plus technologies like CRISPR - Cas 9 (indicative list, not exhaustive).

- **Electives & Credits:**

Have a large number of elective credits available across disciplines. For example, a student in ME does 50% basic of ME, then they get to choose from a large number of electives and are given the flexibility to do a full semester internship with the industry.

The total number of credits for graduation must be reduced from the current 160-180 to 135-140. The objective is to encourage students to give more time to self-study, group

discussions/projects and peer group learning. This would nurture the culture of self-directed learning as opposed to being confined to passive classroom learning for more time.

- Core disciplines (ME, EE, EC, CE) need urgent revamp to cater to the rapidly evolving needs of the industry and rapid changes occurring in technologies. Core engineering industry should proactively support engineering institutes to produce engineers of the required skill set in their own interest. Each engineering industry should tie up with or adopt core engineering departments of at least 3-5 engineering colleges, help them develop curricula in core engineering branches, and mentor the students and faculty.
- Encourage start-up and entrepreneurship activity in core branches by setting up innovation hubs and tinkering labs, providing financial and mentoring support to students of core branches with innovative ideas, and providing credits for spending time on such ideas.
- Provide a chance for core disciplines to do a Double Major by undertaking extra credits.
- Start centres of excellence (CoEs) in core branches and involve students to get them excited to take up various projects.

2. Post Graduate(M.Tech) Programmes:

The enrolment trends in post-graduate programmes confirm that there is no state, discipline or institution category (government/private) for which the moratorium of approval to PG programmes in engineering institutions can be lifted. Existing PG programmes need to be restructured and made R&D and Industry Centric. Institutions /universities should replace the courses that have lost relevance with those in demand from the industry and those in line with government vision.

3. Diploma Programmes:

- i. The enrolment trends in diploma programmes confirm that about 50% of existing capacity is lying vacant. This warrants us not to add any new capacity.
- ii. There is an urgent need to review the curricula of diploma programmes. In the Western world, diploma holders, who primarily graduate from what are known as community colleges, find a lot of relevance in the industry. Indian industry is suffering on account of the non-availability of such relevant and well-trained manpower. This needs serious attention.
- iii. Laboratory equipment is poorly maintained and is outdated. For India to emerge as a globally competitive nation across sectors, it is essential to strengthen this stream of basic engineering talent.
- iv. Industry-academia connect is critical for diploma holders. Internships and apprenticeships need to be used extensively.

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	<p>The Executive also resolved that the suggested recommendations of the said Committee may be incorporated in the forthcoming "AICTE Approval Process Handbook 2022-2023."</p> <p>The EC also opined that the Core disciplines viz. ME, EE, EC, CE may also include the name of the emerging area specialization programme viz. ME(specialization in AI). The EC suggested that AICTE may write to the respective State Governments/UTs requesting to suitably amend their Recruitment Regulations in view of new emerging disciplines to avoid undue hardship for the prospective employment opportunities and equivalency matters being received at AICTE. The EC also suggested that AICTE in its APH must complete the work of nomenclature of UG & PG courses.</p>
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The meeting ended with vote of thanks to the Chair.



(Prof. Rajive Kumar)
Member Secretary



(Prof. A.D. Sahasrabudhe)
Chairman