

Report on Use of ICT and Collaborative Teaching-Learning Process

The institute's IQAC is involved in implementing a variety of innovative teaching learning approaches, including video lectures, orientation programmes, quality improvement in teaching through inter-disciplinary lectures, skill-oriented programmes, supportive classes, problem-based learning, student-aided teaching, creative thinking, co-operative learning and students' seminars.

The institute advocates the use of ICT-enabled tools including online materials to improve teaching and learning. All faculty members implement the teaching-learning process using the available ICT-enabled resources.

The institution supports the extensive use of ICT tools and online resources for effective teaching and learning process. In this regard, classrooms, seminar halls, activity rooms and labs are provided with ICT facilities such as LCD projectors, computers with high-speed internet access and wi-fi facilities to help students learn concepts more readily by visualisation. Each department is provided with smart writing pads to facilitate the involvement in learning courses such as Mathematics, Engineering Mechanics etc. The lecture notes and powerpoint presentations are uploaded in Microsoft Teams to provide easy access to the e-resources.

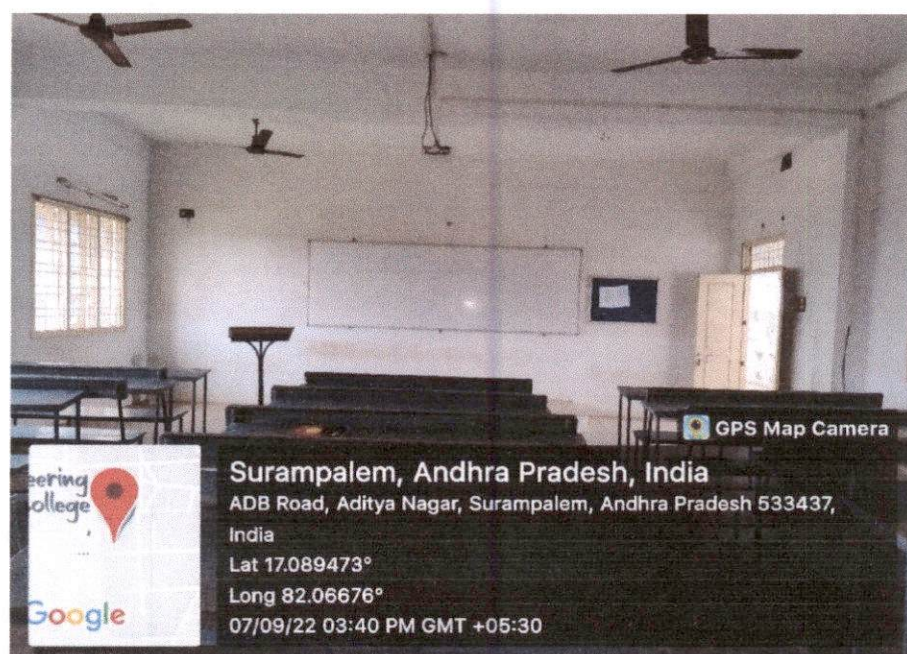


Figure 1 shows a classroom equipped with a projector

Virtual labs are used to conduct labs through simulations. Animations are used in PPTs for a better understanding of the concepts. Concept maps and mind maps are prepared using online drawing tools to present the concepts. The teaching learning centre (NMEICT) of IIT Bombay recognises the institute as a remote centre. Through this centre, many training programmes are conducted online for the students. The institute, in association with L4G solutions, provided all students and faculty free access to Coursera online courses during the COVID-19 pandemic period.


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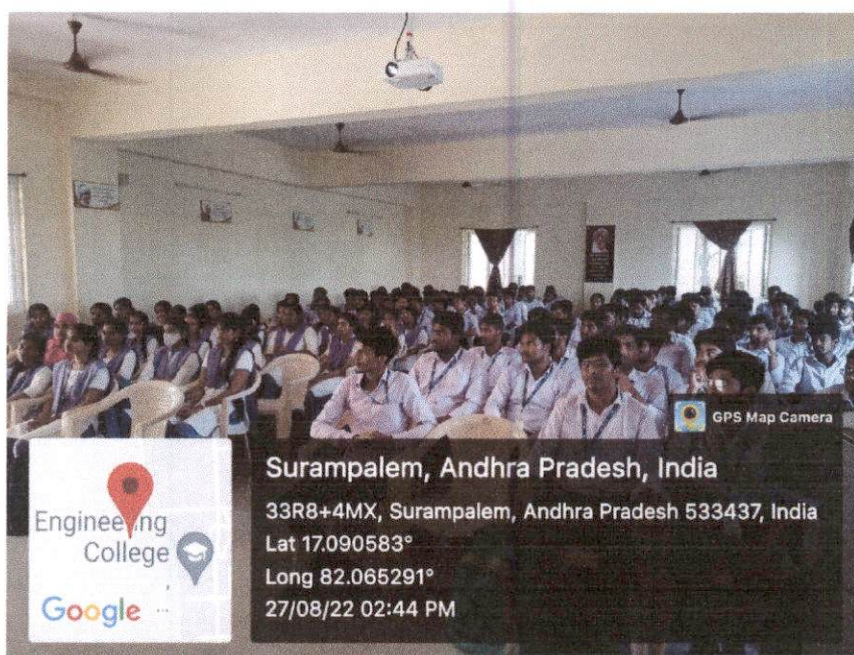


Figure 2 shows a seminar hall equipped with a projector

All faculty members implement the teaching-learning process using the available ICT-enabled resources. A significant proportion of faculty members use learning materials created by them and the demonstrations available on SWAYAM, NPTEL, YouTube, and Coursera. A media centre is established to record video lectures and develop e-content instructional materials.

The central library of the institute is equipped with ICT tools. A digital library allows remote access to e-resources, e-journal articles, and e-books. The institute, in association with KNIMBUS, offers free online access to journals and magazines to the students and faculty. Online Public Access Catalog (OPAC) is available to search the catalogue of library materials.



Figure 3 shows the NPTEL award function

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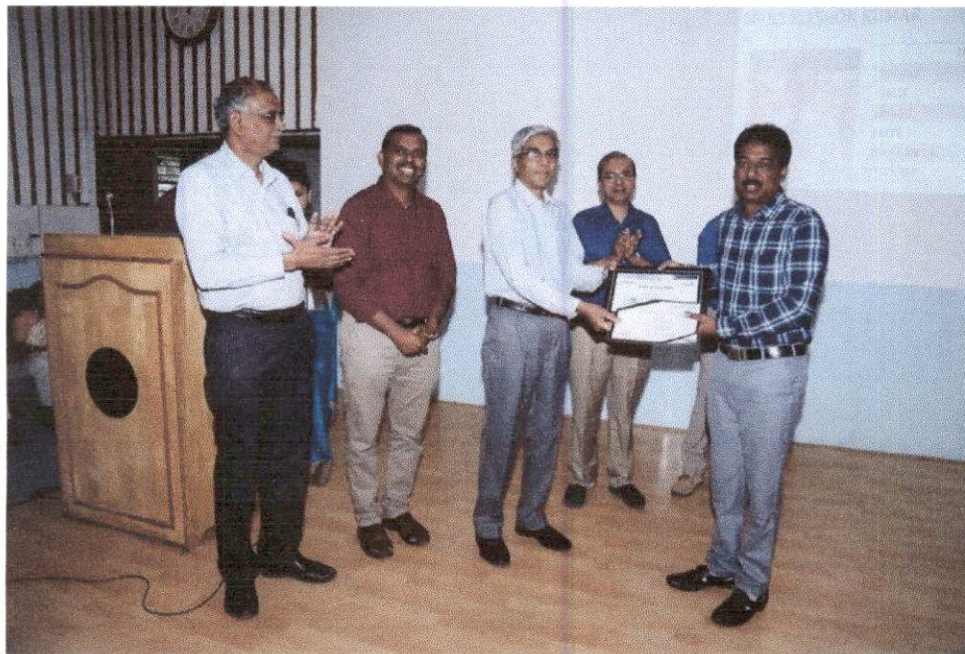


Figure 4 shows the NPTEL award function

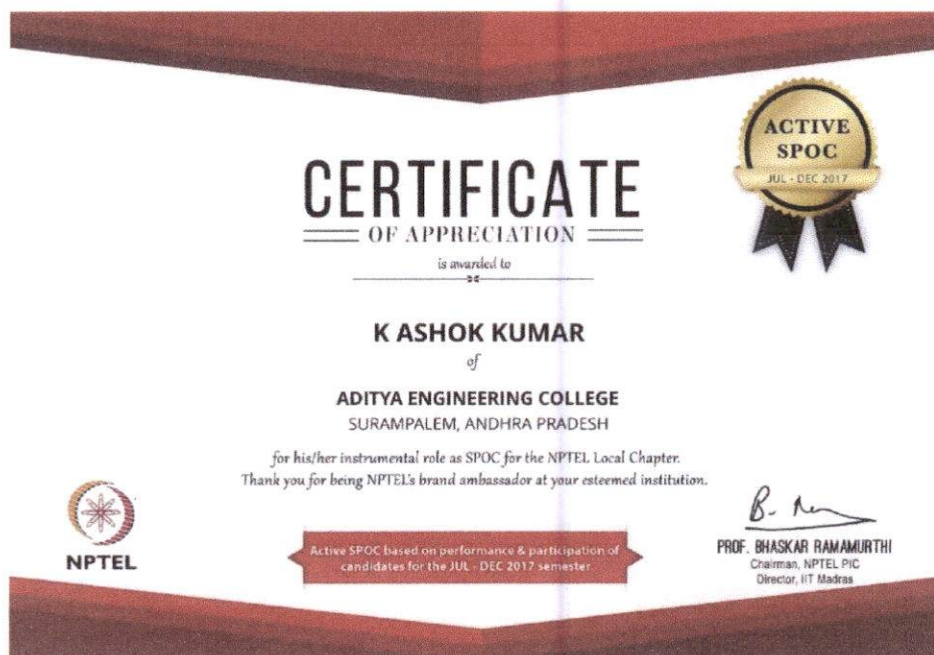


Figure 5 shows the NPTEL certificate

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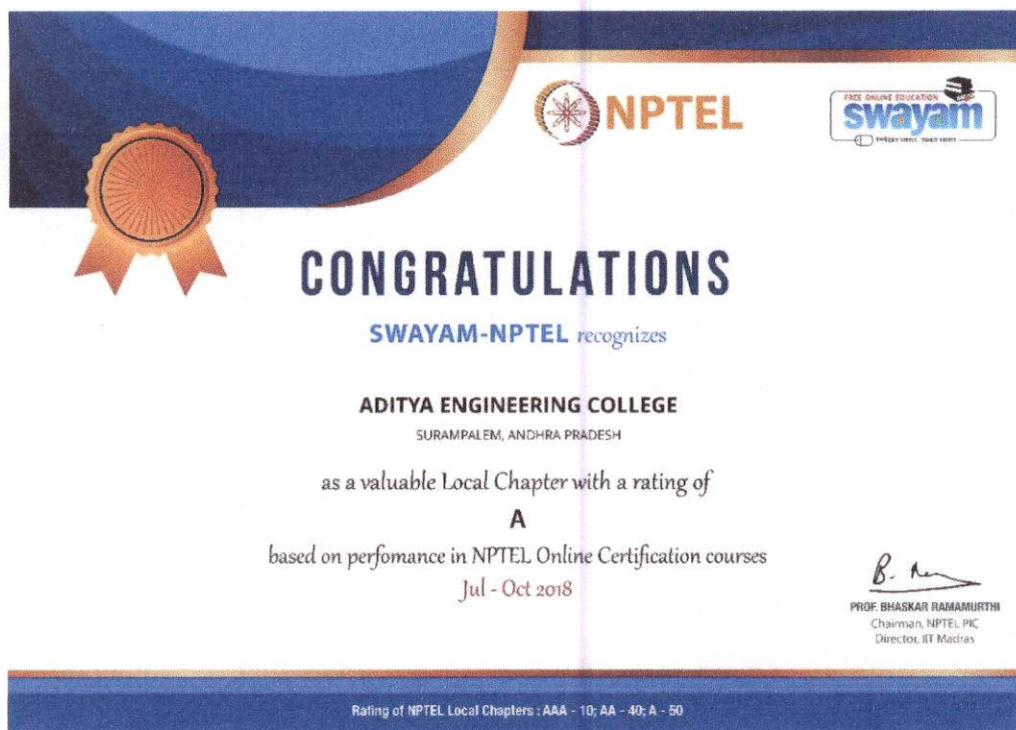


Figure 6 shows the NPTEL certificate

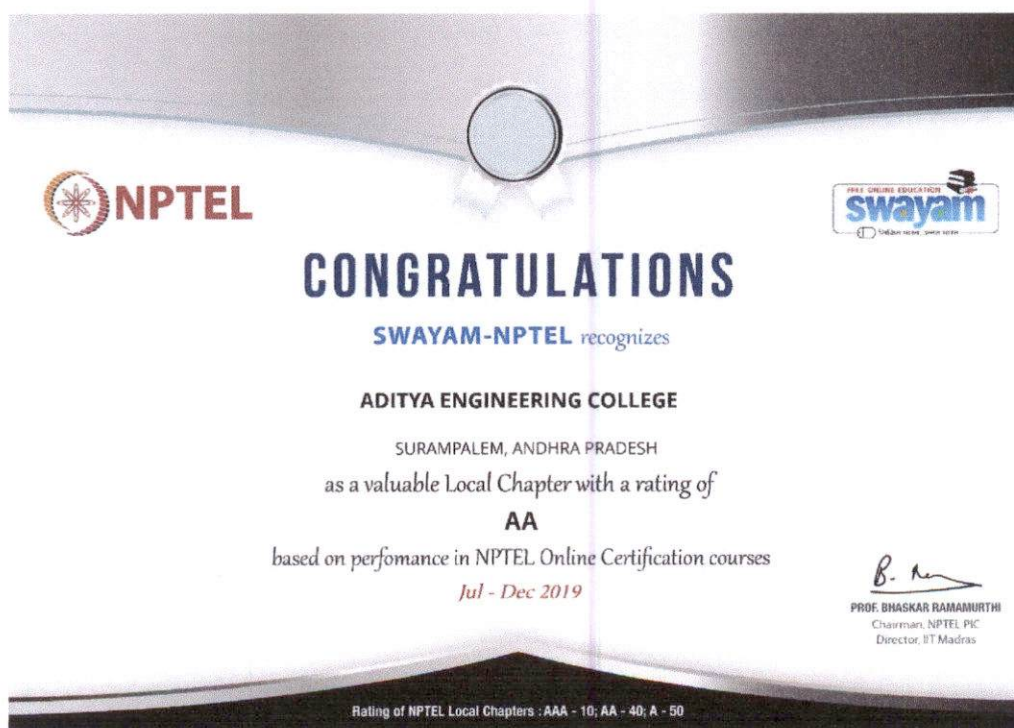


Figure 7 shows the NPTEL certificate


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Figure 8 Shows the faculty receiving a NPTEL award



Figure 9 Shows the faculty receiving a NPTEL award


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Collaboration in Teaching-Learning Practices:

The institute has MOUs with 26 academic and industrial organizations to promote collaborative learning. The collaboration activities include workshops, internships, industrial visits etc.,

List of MOUs

1. EPAM Systems India Private Ltd
2. UN Academy
3. Appleton Innovations
4. Manihamsa Power Projects Ltd.
5. Krify Software Technologies (P) Ltd
6. Fly Masters
7. Bule Hora University
8. Hexaware Technologies Ltd
9. Centre of Excellence in Maritime & Shipbuilding
10. Novel Patent Services Private Limited
11. Matoshri Pratisthan's School of Engineering Nanded
12. Younify Applications Pvt Ltd
13. Gokaraju Rangaraju Institute of Engineering and Technology
14. Addis Ababa Science & Technology University
15. Tessolve Semi-conductor Pvt Ltd
16. AP State Skill Development Corporation & European Center for Mechatronics APS
GmbH Aachen, Germany
17. TIME Pvt Ltd India
18. Automaton Anywhere
19. Sreshta Engineers
20. Electro Pro
21. AP State Skill Development Corporation



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