Department of Electronics and Telecommunication Engineering
K. K. Wagh Institute of Engineering Education and Research
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Innovative Teaching – Learning Activity

Spoken Tutorial Courses
Class: FE, SE, TE

1. Introduction

The Spoken Tutorial project, developed by IIT Bombay under the National Mission on Education through ICT (NMEICT), provides self-learning courses on various software and programming languages. These tutorials are beneficial for E&TC engineering students as they enhance their technical skills, software proficiency, and problem-solving abilities through hands-on training.

2. Objectives

The primary objectives of conducting this Spoken Tutorial course for E&TC students were:

- To bridge the gap between theoretical knowledge and practical applications.
- To enhance students' software proficiency in tools such as MATLAB, Scilab, Python, LaTeX, and Arduino programming.
- To provide hands-on exposure to circuit simulation and signal processing tools.
- To improve students' employability by equipping them with industry-relevant skills.
- To encourage self-paced learning and certification-based assessment.
- To integrate online learning methodologies in the curriculum effectively.

Summary of the activity is as follows:

Sr. No.	FOSS	Class	Date	Participants	Academic Year
1	Arduino	TY BTech	03 Oct 2024	105	2024-25
2	LaTeX	TY BTech	03 Oct 2024	10	
3	C	FY BTech	23 Mar 2024	93	2023-24
4	Python 3.4.3	SY BTech	20 Mar 2024	121	
5	Cpp	SE E&TC	18 May 2023	114	2022-23
6	Cpp	SE E&TC	31 March 2023	49	
7	C	SE E&TC	20 Feb 2023	90	

Outcomes of the Activity

After successful completion of the Spoken Tutorial course, students:

● Gained proficiency in using industry-standard software for simulations, coding, and circuit analysis.
● Developed the ability to debug and troubleshoot software-based problems effectively.
● Earned certifications from IIT Bombay, which enhanced their resume and career prospects.
● Improved their self-learning abilities, making them more adaptable to future technological advancements.

Student Achievements:

1. Team MittiManthan from the ENTC Department, K. K. Wagh Institute of Engineering Education and Research, has secured 1st place in the Agriculture domain at the prestigious TechFiesta International Hackathon hosted by PICT!

Members of the Winning Team:

 Ayush Pund (Leader)
 Yash Giri
 Yash Barve
 Vidhi Metkar
 Jaymala Desale (Computer Department)

2. Our team secured a Top 10 rank in Kleos 2.0 National Hackathon, held at DY Patil Mumbai, for developing a Multilingual Banking System using Python, Flask, and React.

3. Team EncryptoEnclave, led by Ritesh Sakhare reached the finals of the Smart India Hackathon 2024 held at Manipal University Jaipur. Their project Worked on ps1559 of Adhar Card backend Service , impressing judges from the Ministry of Electronics and Information Technology. Held from December 11th to 15th, 2024, this innovative solution highlighted their commitment to security and efficiency in government services.

4. Our students showcased their talent at MindSpark 24, a prestigious national-level competition organized by COEP, Pune. The event, held to bring together the brightest engineering minds across the country, featured exciting robotics challenges such as Robo War, Robo Sumo, and Robo Race. The ENTC team participated in both Robo Race and Robo Sumo competitions. Under the leadership of Atharva Mayekar, along with teammates Kanaad Buwa, Harshvardhan Shah, Sanket Ghadge, Sarvesh Kshirsagar, Sagar Sahu, and Amogh Aradhye, the team achieved an impressive 8th rank out of 150 participating teams in Robo Race.