

**Shri Sant Gajanan Maharaj College of Engineering Shegaon**  
**Department of Electronics and Telecommunication Engineering**

**Link of PPTS:** [https://drive.google.com/drive/folders/1xvjCE4n5EL-MuLBGcxCM0zxfCrczbWo0?usp=drive\\_link](https://drive.google.com/drive/folders/1xvjCE4n5EL-MuLBGcxCM0zxfCrczbWo0?usp=drive_link)

**Course Title & Course Code:** EMBEDDED SYSTEMS (Code: 8ETC01)

**Class:** Final year (4U1)

**Semester:** VIII th

**Name of the Course Teacher:** Dr.K.B.Khanchandani

**Title of the innovative practice:** Power Point Presentation

**Objectives/Goals of the practice:**

The primary goal of this innovative teaching practice is:

1. To boost education with visual aids, interactive learning, structured content, accessibility, and support for diverse learning styles for the subject EMBEDDED SYSTEMS
2. Engage students and encourage them to participate actively in learning.

**Use of Appropriate Methods:**

To achieve the stated goals, the following methods were implemented:

- PowerPoint became a medium for creating immersive virtual simulations, allowing students to interact with the material in a unique way.
- PowerPoint's features like multimedia, clickable buttons, hyperlinks, and scenarios are which transform the classrooms into vibrant learning environments, thus promoting active participation and genuine student engagement.

**Effective Presentation:**


1. Link was shared with all students
2. Short quiz was conducted to assess student understanding

## Photo of the activity

**'Smart' running shoes from Adidas – The Innovative bonding of Life Style with Embedded Technology**

- ✓ Shoe developed by Adidas, which constantly adapts its shock-absorbing characteristics to customize its value to the individual runner, depending on running style, pace, body weight, and running surface
- ✓ It contains sensors, actuators and a microprocessor unit which runs the algorithm for adapting the shock-absorbing characteristics of the shoe
- ✓ A 'Hall effect sensor' placed at the top of the "cushioning element" senses the compression and passes it to the Microprocessor
- ✓ A micro motor actuator controls the cushioning as per the commands from the MPU, based on the compression sensed by the 'Hall effect sensor'

*What an innovative bonding of Embedded Technology with Real life needs !!! ☺*



Electronics-enabled "Smart" running shoes from Adidas:  
Photo Courtesy of Adidas – Salomon AG  
([www.adidas.com](http://www.adidas.com))

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## PO's & PSO's Mapped:

PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2

## Reflective Critique:

The link of *Power Point Presentatios* was shared with other faculty members.

Mr. V. K. Bhangdiya suggested to add Real time designs of few Embedded System applications

Ms. Vikram Ingole suggested to provide comparison of various RTOS.

## Evidences of success:

Increased Student Engagement :100% of students have gone through the PPTS and actively participated in simulation and hardware based real time designs.

## Challenges faced during implementation:

--None

Link for peer review : <https://forms.cloud.microsoft/r/ASg9ShAPf9>