

**Report on Innovative Teaching Learning method adopted for ISE evaluation of Project
Demonstration on given Microcontroller development board by Prof. Priya Deshpande and
Dr. S. S. Rathod**

Sem IV, ETRX Subject: Microcontroller (ET206), Academic Year: 2021-22

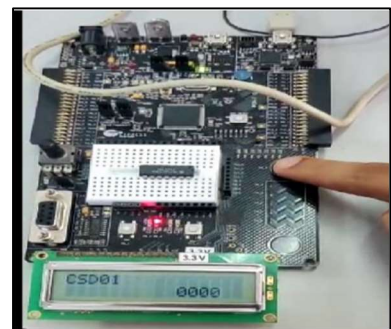
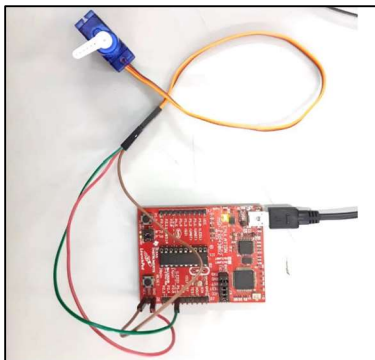
As a part of Internal Assessment of Microcontroller Lab students were given various development boards and assessment is done on the basis of level of understanding and level of experiments done on that development boards.

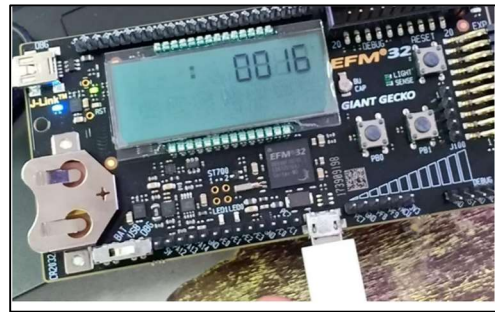
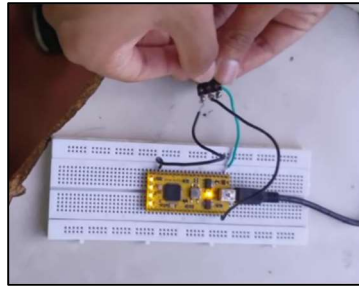
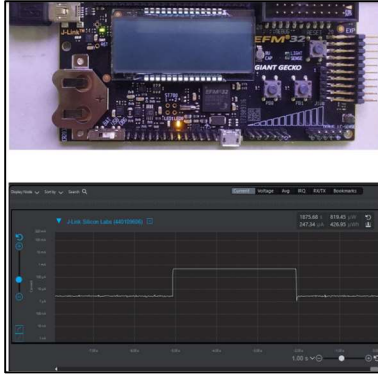
Group of 2 students consist of one slow learner and fast learner (decision taken on basis of first 6 experiment evaluation marks) were made for this ISE.

Following boards were given to students

- 1) PSOC 5
- 2) PSOC 4
- 3) PSOC 3
- 4) MSP ultra low power board
- 5) MSP 432
- 6) Silicon Lab's Giant Gecko EFM32
- 7) FRDM board
- 8) mbed NXP LPC1114

Some of screenshots of Projects:





Following Rubrics were used for evaluation

Student has explored the given board properly	Not at all 0 points	Moderately 1 points	Very well 2 points
Student has run multiple problem statements on the board	Not at all 0 points	Moderately 1 points	Very well 2 points
Student is able to design its own experiment	Not at all 0 points	Moderately 1 points	Very well 2 points
Student has demonstrated the board to his/ her class mates	Not at all 0 points	Moderately 1 points	Very well 2 points
Student has submitted the report with proper conclusion and design in moodle	Not at all 0 points	Moderately 1 points	Very well 2 points

Impact Analysis:

In a class of 76 students, 49 students go marks above average i.e 7 marks

42	2020100037	MADHAVI SURATHI	PSOC4	→ P SOC4	→ PRD M
43	2020100038	MUKHERJEE SHRUTIMAN	PSOC5	→ MSP4.30	→ Htrd M PRD M
44	2020100039	NARAYNE ADITYA	MSP4.30	→ FRDM	→ PSOC3.5
45	2020100040	PANCHAL DEVIRAM	PSOC4	→ PSOC5	→ Gtrd M
46	2020100041	PANCHAL KRUSHI	MSP4.30	→ FRDM	→ Gtrd M
47	2020100042	PATIL ARPIT SANJAY	FRDM	→ FRDM	→ MSP4.30
48	2020100043	PATIL CHETAN SUNIL	MSP4.30	→ FRDM	→ MSP4.30
49	2020100044	PATIL JAHAN PANKAJ	MSP4.30	→ FRDM	→ MSP4.30
50	2020100045	PRASANTH AMITH K.P.	MSP4.30	→ FRDM	→ MSP4.30
51	2020100046	RAIRIKAR DEVASHISH	FRDM	→ FRDM	→ MSP4.30
52	2020100047	RANMALE YEDANG	PSOC5	→ MSP4.30	→ PSOC5
53	2020100048	SAHU SONU GYANCHAND	PSOC5	→ MSP4.30	→ PSOC5
54	2020100049	SAKRE ATHARVA	FRDM	→ FRDM	→ MSP4.30
55	2020100050	SAMANT NIDHI NARAYAN	FRDM	→ FRDM	→ MSP4.30
56	2021101075	PARDESHI TEJAS RATANS	PSOC5	→ FRDM	→ PSOC5
57	2021101076	PATEL NIKITA SANJAY	MSP4.30	→ FRDM	→ PSOC5
58	2020100051	SARAF NIKHIL VIJAY	PSOC4	→ MSP4.30	→ PSOC5
59	2020100052	SAWAI YASH MILIND	FRDM	→ FRDM	→ MSP4.30
60	2020100053	SHAH NAMOHNARAYAN	FRDM	→ FRDM	→ MSP4.30
61	2020100054	SHAH SHREYAS AJAY	FRDM	→ FRDM	→ MSP4.30
62	2020100055	SINGH NIKHIL SURESH	FRDM	→ FRDM	→ MSP4.30
63	2020100056	TADGE ATHARVA	MSP4.30	→ FRDM	→ MSP4.30
64	2020100057	TAWDE IRISHIKESH	FRDM	→ FRDM	→ MSP4.30
65	2020100058	THAKARE TEJAS	FRDM	→ FRDM	→ MSP4.30
66	2020100059	TIKURDE SHREYASH	FRDM	→ FRDM	→ MSP4.30
67	2020100060	UPADHYAY SHUBHAM	FRDM	→ FRDM	→ MSP4.30
68	2020100061	URSAL PRATHAMESH	FRDM	→ FRDM	→ MSP4.30
69	2020100062	VAIDYA AARYAN	FRDM	→ FRDM	→ MSP4.30
70	2020100063	VASANI CHIRAG VIDYUT	FRDM	→ FRDM	→ MSP4.30
71	2020100064	VYSHNAV ANIL	FRDM	→ FRDM	→ MSP4.30
72	2020100065	WALDE DIPALI	FRDM	→ FRDM	→ MSP4.30
73	2020100067	YADAV SUYOG BHUPAL	FRDM	→ FRDM	→ MSP4.30
74	2021101077	SALVI SOURABH YOGESH	FRDM	→ FRDM	→ MSP4.30
75	2021101078	SHELAR SAKSHI DATTATRA	FRDM	→ FRDM	→ MSP4.30
76	2021101079	SURVE BHAVESH SADANA	FRDM	→ FRDM	→ MSP4.30