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

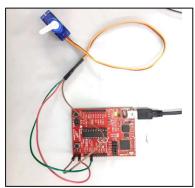
As a part of Internal Assessment of Microcontroller Lab students were given various development boards and assessment is done on the basis of level of understanding and level of experiments done on that development boards.

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.

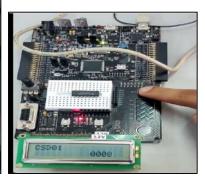
Following boards were given to students

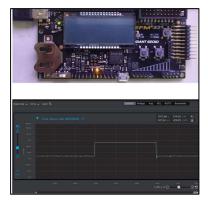
- 1) PSOC 5
- 2) PSOC 4
- 3) PSOC 3
- 4) MSP ultra low power board
- 5) MSP 432
- 6) Silicon Lab's Giant Gecko EFM32
- 7) FRDM board
- 8) mbed NXP LPC11U24

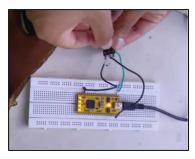
Some of screenshots of Projects:

















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

Following Students were allotted the development boards

| | T 13 | 2020100037 MADHAVI SUKUCHI | | MI | | 1 1 | | 1 | 2020100001 | AGRAWAL PRANJAL - | + P | 8064 | 1/ | 1 | (10) | m | | |
|-----|------|--|--------|-------------|---------|---------------|-----|---------------|------------|---|----------------------|--------------------|--------------|--------|--------|-------|--------|-----|
| | 43 | A CHARLED INC. CUDITIMAN | | 750C4 | _ | | A | 2 | 2020100002 | | | MCP | 30 1 | Hral | 700 | , , | | |
| c | 43 | 2020100039 NARAYNE ADITYA | | PSOC5 | | _ | | 3 | | BHAGWAT ATHARAV | - | FRD | | | c3CRI | pm | | |
| | 45 | PARTITION AND A PROPERTY OF THE PARTY OF THE | | msp430 - | | - | | E | | 34 | 2020100004 | BHOPE RAJAS ATUL - | PS | OC 5/ | 1 | 150 | Griant | 0 |
| | 46 | TANGETT UNICE | | P50C4 | | | | | 3 | 2020100006 | CHAUDHARI DURVESH . | - | EFM. | 12/ | | Giant | | |
| | 47 | 2020100042 PATIL ARPIT SANJAY | | msp630 lo | w power | \vdash | | | | 6 | 2020100007 | CHOUDHARY KUNDAN | - / | CFI | 1324 | 7 | MSP4 | neo |
| | 48 | 2020100043 PATIL CHETAN SUNIL | | FRDM - | / | | | | | 7 | | | > Also | DOET F | 3004 | 9 | MSPG | 80 |
| | 49 | 2020100044 PATIL JAHAN PANKAJ | | mepuzok | | | | | 8 | | | / | EFM3 | 2/ | | Psoc | 5 | |
| | 50 | 2020100045 PRASANTH AMITH K.P. | | mep 430 | | $\overline{}$ | | | 9 | | DESHMUKH ANUSHRI | →/ . | FIRPT | | 7 | MSPG | 10 | |
| | 51 | 2020100046 RAIRIKAR DEVASHISH | | moed. | | | | 10 | | | | SP 430 | | / | PSOC S | + | | |
| | 52 | 2020100047 RANMALE VEDANG | | PSOC3 | | | (- | 1 | | | DPS | 0/c 5 | / | | PSOC. | | | |
| | 53 | 2020100048 SAHU SONU GYANCHAND | | PSOCS | | | | | 12 | | | 17 | MSPG | | V | MSP4. | 0 | |
| | 54 | 2020100049 SAKRE ATHARVA | | Giant (4 co | leo | | | 13 | | | \rightarrow | FRO | | | MSPGS | | | |
| | 55 | 2020100050 SAMANT NIDHI NARAYAN | | FROM. | | | | 14 | | GANDHI RAJ PRITAM BHOSALE SHRUTI RAJAN | \rightarrow $/$ | mbed | M •X₽ | | MP430 | orop | | |
| | :56 | 2021101075 PARDESHI TEJAS RATANSI | | PSOC5 | | | | 16 | | GAVAND SRUSHTI ANKUS | 7 | RDM. | , | | PSOC. | ₩ . | | |
| - | 57 | 2021101076 PATEL NIKITA SANJAY | | me p4 \$0 | | $\overline{}$ | | 17 | | HADOLE ABHINAV DIPAK | 7/ | PS/CC MUPLS | 7 | | PSOC | 4 | | |
| | 58 | 2020100051 SARAF NIKHIL VIJAY | PSO | | | | | 18 | | JOSHI RAHUL MUKUL | 7 | MRP | | P | where | 1 | | |
| | 59 | 2020100052 SAWAI YASH MILIEND | | nt Grede o | | | | 19 | | KHOPKAR MOHIT SUBHAS | 1 | mbed | | | mbi | ₽ | | |
| | 60 | 2020100053 SHAH NAMOOHNARAYAN | 115.60 | | | | | 20 | | GHARAT KAUSTUBH | - | N IDEA | 19XP | 9 | | 1 | | |
| | 61 | 2020100054 SHAH SHREYES AJAY | | of Grenks. | | | _B_ | 21 | | GODE KAUSTUBH | | | 7 msv | | | | | |
| | 62 | 2020100055 SINGH NIKHIL SURESH | FRI | | _ | | | 22 | 2020100019 | GORAD PRATHMESH | | | moo | | | | | |
| | 63 | 2020100056 TADGE ATHARVA | mbe | | | | | 23 | 2020100020 | HARIDAS ARJUN | | | PSOC | - | | 1 | | |
| | 64 | 2020100057 TAWDE HRISHIKESH | | low pour 1 | nephao | | | 24 | 2020100021 | JADHAV AMISHA VIJAY | | | mbe | d . | | - | | |
| - 1 | 65 | 2020100058 THAKARE TEJAS | mbe | | | | | | 25 | | JADHAV JANHAVI VIJAY | | | msp | 470. | | 1 | |
| D | 66 | 2020100059 TIRPUDE SHREYASH | Low p | Dues mapa | 30 | | | | 26 | | JAMADAR WAJID BABASO | | | PSOC. | 4 | 1 | 1 | |
| | 67 | 2020100060 UPADHYAY SHUBHAM | MSP. | | | | | | 27 | | JOBY NIKITA MARIA | | | Giant | Grecka | | 1 | |
| 1 | _ | 2020100061 URSAL PRATHAMESH | mes | | | | | - | | JOGI HARSHITA UMESH | | | PSOC | | | | | |
| | 69 | 2020100062 VAIDYA AARYAN | MSPG | 301 | | | | $\overline{}$ | | KADAM NAMITA PRAFUL- |) | PSOC S | FPS00 | 5 | | | | |
| | 70 | 2020100063 VASANI CHIRAG VIDYUT | | C5 \ | | | | $\overline{}$ | | KALATHIL TANISHA | | / - | - ms | P4301 | Hra. | | | |
| | _ | 2020100064 VYSHNAV ANIL | PSd | C5 | | | | 31 | | KANOJA SANKET SURESH | | _ | m | red. | | | | |
| | _ | 2020100065 WALDE DIPALI | PSC | 03 | | | | | | KANTHE TEETHI DEEPAK | | _ | - FRD | | | 1 | | |
| | _ | 2020100067 YADAV SUYOG BHUPAL | PSO | C4/ | | | | | | KHAIRNAR TANISHQ | ı | - | | 130 U | 1-180. | | | |
| | | 2021101077 SALVI SOURABH YOGESH | MEP | 301 | | | | | | KHANNA SAKSHI SANJAY. | <u> </u> | RSOC | 1-0 | | |] | | |
| - | 75 | 2021101078 SHELAR SAKSHI DATTATR | 250 | (3 | | | | | | KHUNE ABHIJIT MARUTI | | _ | + FRD | m. | | | | |
| | 76 | 2021101079 SURVE BHAVESH SADANA | mspa | 30 | | | | | | KOKANE NEERAJ GANESH | | | Gian | Gredeo | | | | |