## MINOR CURRICULUM

| S. No | Course Code | Course Name | EQUIVALENT COURSES OFFERED BY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MINOR COMPULSORY COURSES** | | | **SWAYAM-NPTEL** | | | **COURSERA / UDEMY** | | | **SPOKEN TUTORIAL - IITB** | | |
| | | | *Course Name* | C | Course Dates* | *Course Name* | C | Course Dates* | *Course Name* | C | Course Dates* |
| 1 | U18MCI1001 | Analog electronics | *Analog ElCItronic Circuit* | 3 | CCD: 26 Jul 2021 / LDR: 02 Aug 2021 | -- | - | CCD: / LDR: | -- | -- | CCD: / LDR: |
| 2 | U18MCI1002 | Signals and Systems | -- | | CCD: / LDR: | -- | - | CCD: / LDR: | -- | -- | CCD: / LDR: |
| 3 | U18MCI1003 | Electrical Measurement and Electronic Instruments | *Electrical Measurement and Electronic Instruments* | 3 | CCD: 26 Jul 2021 / LDR: 02 Aug 2021 | -- | - | CCD: / LDR: | -- | - | CCD: / LDR: |
| **MINOR ELCITIVE COURSES** | | | | | | | | | | | |
| 4 | U18MCI1004 | Digital Circuits | *Digital Circuits (Or) Switching Circuits and Logic Design* | 3 | CCD: 26 Jul 2021 / LDR: 02 Aug 2021 | -- | - | CCD: / LDR: | -- | - | CCD: / LDR: |
| 5 | U18MCI1005 | Sensors & Actuators | -- | - | CCD: / LDR: | -- | - | CCD: / LDR: | -- | - | CCD: / LDR: |
| 6 | U18MCI1006 | Communication Engineering | *Analog communication* | 3 | CCD: 26 Jul 2021 / LDR: 02 Aug 2021 | -- | - | CCD: / LDR: | -- | - | CCD: / LDR: |

| No | Course Code | Course Name | MOOC Equivalent | | CCD/LDR | | | CCD/LDR | | | CCD/LDR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | U18MCI1007 | Integrated Circuits | -- | - | CCD: | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: | | | LDR: | | | LDR: |
| 8 | U18MCI1008 | Digital Signal Processing | -- | -- | CCD: | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: | | | LDR: | | | LDR: |
| 9 | U18MCI1009 | Microprocessors and Interfacing | -- | -- | CCD: | - | - | CCD: | -- | | CCD: |
| | | | | | LDR: | | | LDR: | | | LDR: |
| 10 | U18MCI1010 | Industrial Internet of Things | *Introduction to internet of things (or) Introduction to Industry 4.0 and Industrial Internet of Things* | 3 | CCD: 26 Jul 2021 | -- | - | CCD: | -- | 2 | CCD: |
| | | | | | LDR: 02 Aug 2021 | | | LDR: | | | LDR: |
| 11 | U18MCI1011 | Introduction to Embedded System Design | -- | - | CCD: | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: | | | LDR: | | | LDR: |
| 12 | U18MCI1012 | Mathematical Foundation for Machine Learning | *Mathematical Aspects of Biomedical Electronic System Design* | 3 | CCD: 26 Jul 2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02 Aug 2021 | | | LDR: | | | LDR: |
| 13 | U18MCI1013 | Artificial Intelligence and Applications | *Artificial Intelligence Search Methods For Problem Solving* | - | CCD: 26 Jul 2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02 Aug 2021 | | | LDR: | | | LDR: |
| 14 | U18MCI1014 | Wireless and Cellular Communications | *Introduction to Wireless and Cellular Communications* | - | CCD: 26 Jul 2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02 Aug 2021 | | | LDR: | | | LDR: |
| 15 | U18MCI1015 | Fiber Optic Communications | *Fiber Optic Communication Technology* | 3 | CCD: 26 Jul 2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02 Aug 2021 | | | LDR: | | | LDR: |

| # | Course Code | Course Title | Equivalent MOOC | C | Dates | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | U18MCI1016 | Digital Image Processing | *Digital Image Processing* | 3 | CCD: 26 Jul 2021 / LDR: 02 Aug 2021 | -- | - | CCD: / LDR: | -- | - | CCD: / LDR: |
| 17 | U18MCI1017 | VLSI Design | -- | 3 | CCD: 26 Jul 2021 / LDR: 02 Aug 2021 | -- | - | CCD: / LDR: | -- | - | CCD: / LDR: |
| 18 | U18MCI1018 | Biomedical Instrumentation | -- | 3 | CCD: 26 Jul 2021 / LDR: 02 Aug 2021 | -- | 3 | CCD: / LDR: | -- | - | CCD: / LDR: |

I. In exigency situations such as the student already completed the listed compulsory courses(s) on his/her own interest during previous semesters through valid MOOCs etc, the HoD in consultation with Dean-AA shall propose an alternative course(s) for the spCIific scenario, after verification of relevant documents.

II. By the end of April of every academic year, the department in consultation with Dean-AA, shall
   A. notify the list of equivalent courses in SWAYAM-NPTEL MOOCs / other standard MOOCs against the list of courses notified under Honours curriculum
   B. propose a new course(s) in the place of any listed course(s) in the Honours curriculum, in case no equivalent course is found in MOOCs

**\*C**: **C**redits ; **CCD**: **C**ourse **C**ommencement **D**ate; **LDR**: **L**ast **D**ate of **R**egistration

| - | | Laboratory Courses ( any 2 courses ) - TO BE TAKEN IN THE MINOR DEPARTMENT | | |
|---|---|---|---|---|
| 19 | **Minor Laboratory Courses** | U18MCI1019 | Analog and Digital Circuits Laboratory | |
| 20 | | U18MCI1020 | Communications Engineering Laboratory | **2 credits** |
| 21 | | U18MCI1021 | Signal Processing Laboratory | |
| 22 | | U18MCI1022 | Microprocessors and Embedded systems Laboratory | |
| | | | *Total Credits to be earned* | **18+2** |

Date:02.07.2021

Sd/-
**D.Venu**
**MOOCs Coordinator**

Sd/-
**Dr. B. Rama Devi**
**Head of the Department**

Sd/-
**Dr.V. Rajagopal**
**Dean, Academic Affairs**