

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, Bhopal (M.P.)**  
**TECHNOCRATS INSTITUTE OF TECHNOLOGY (An Autonomous Institute)**

**Scheme of Examination**

**First Semester- Master of Technology**

**(Micro Electronics and VLSI Design)**

| S.N<br>o. | Subject Code                        | Subject name                                                                          | Periods Per<br>week |          |          | Credits   | Maximum Marks<br>(Theory Slot) |               |                     | Maximum Marks<br>(Practical Slot)  |                                                          | Total<br>Marks |
|-----------|-------------------------------------|---------------------------------------------------------------------------------------|---------------------|----------|----------|-----------|--------------------------------|---------------|---------------------|------------------------------------|----------------------------------------------------------|----------------|
|           |                                     |                                                                                       | L                   | T        | P        |           | End.<br>Sem.<br>Exam.          | Test<br>(Two) | Assignment/<br>Quiz | End.<br>Sem.<br>Practical<br>/Viva | Practical<br>Record/Assign<br>ment/Quiz/Pre<br>sentation |                |
| 1.        | MEVD - 101                          | Digital Signal Processing                                                             | 3                   |          | ....     | 3         | 70                             | 20            | 10                  | ....                               | ....                                                     | 100            |
| 2.        | MEVD - 102                          | CMOS VLSI Design                                                                      | 3                   |          | ....     | 3         | 70                             | 20            | 10                  | ....                               | ....                                                     | 100            |
| 3.        | MEVD - 103<br>Program Elective - I  | Elective - I<br>1. Advanced Logic Design<br>2. VLSI Signal Processing                 | 3                   |          | ....     | 3         | 70                             | 20            | 10                  | ....                               | ....                                                     | 100            |
| 4.        | MEVD - 104<br>Program Elective - II | Elective - II<br>1. Embedded Microcontroller<br>Programming<br>2. Solid State Devices | 3                   |          | ....     | 3         | 70                             | 20            | 10                  | ....                               | ....                                                     | 100            |
| 5.        | MEVD - 105                          | Research Methodology & IPR                                                            | 2                   |          | ....     | 2         | 70                             | 20            | 10                  | ....                               | ....                                                     | 100            |
| 6.        | MEVD - 106                          | Lab-I<br>(Digital Signal Processing)                                                  | ....                | ....     | 4        | 2         | ....                           | ....          | ....                | 90                                 | 60                                                       | 150            |
| 7.        | MEVD- 107                           | Lab II<br>(CMOS VLSI Design)                                                          | ....                | ....     | 4        | 2         | ....                           | ....          | ....                | 90                                 | 60                                                       | 150            |
|           | MEVD - 108                          | Audit Course-1<br>English for Research Paper<br>Writing                               |                     |          |          |           |                                |               |                     |                                    |                                                          |                |
|           |                                     | <b>Total</b>                                                                          | <b>14</b>           | <b>0</b> | <b>8</b> | <b>18</b> | <b>350</b>                     | <b>100</b>    | <b>50</b>           | <b>180</b>                         | <b>120</b>                                               | <b>800</b>     |

**L: Lecture-**

**T: Tutorial-**

**P: Practical**

**w.e.f. July-2025**

*Sandip Nemade*  
*Megha Chaturvedi*  
*Dr. G.P. Rathor*

*Dr. K. Chavhan*

*Dr. N. K. Shrivastava*

डॉ. मधु शान्दिल्या / Dr. Madhu Shandilya  
 प्राध्यापक / Professor  
 इलेक्ट्रॉनिक्स एवं कम्युनिकेशन इंजीनियरिंग विभाग  
 Department of Electronics & Communication Engineering  
 एम.ए.एन.आई.टी., भोपाल-462003 (म.प्र.)  
 M.A.N.I.T., Bhopal-462003 (M. P.)

*Anil Kumar*

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, Bhopal (M.P.)**  
**TECHNOCRATS INSTITUTE OF TECHNOLOGY (An Autonomous Institute)**

**Scheme of Examination**  
**Second Semester- Master of Technology**  
**(Micro Electronics and VLSI Design)**

| S. N o. | Subject Code                         | Subject name                                                                 | Periods Per week |          |          | Credits   | Maximum Marks (Theory Slot) |            |                  | Maximum Marks (Practical Slot) |                                               | Total Marks |
|---------|--------------------------------------|------------------------------------------------------------------------------|------------------|----------|----------|-----------|-----------------------------|------------|------------------|--------------------------------|-----------------------------------------------|-------------|
|         |                                      |                                                                              | L                | T        | P        |           | End. Sem. Exam.             | Test (Two) | Assignment/ Quiz | End. Sem. Practical /Viva      | Practical Record/Assignment/Quiz/Presentation |             |
| 1.      | MEVD - 201                           | VLSI Technology                                                              | 3                |          | -        | 3         | 70                          | 20         | 10               | -                              | -                                             | 100         |
| 2.      | MEVD - 202                           | Real Time Operating System                                                   | 3                |          | -        | 3         | 70                          | 20         | 10               | -                              | -                                             | 100         |
| 3.      | MEVD - 203<br>Program Elective - III | Elective - III<br>1. VLSI Testing and Testability<br>2. Memory Technologies  | 3                |          | -        | 3         | 70                          | 20         | 10               | -                              | -                                             | 100         |
| 4.      | MEVD - 204<br>Program Elective - IV  | Elective - IV<br>1. Microelectronics<br>2. Network Security and Cryptography | 3                |          | -        | 3         | 70                          | 20         | 10               | -                              | -                                             | 100         |
| 5.      | MEVD - 205                           | Embedded Computing system Design                                             | 2                |          | -        | 2         | 70                          | 20         | 10               | -                              | -                                             | 100         |
| 6.      | MEVD - 206                           | Lab-III (VLSI Technology)                                                    | -                | -        | 4        | 2         | -                           | -          | -                | 90                             | 60                                            | 150         |
| 7.      | MEVD - 207                           | Lab-IV (Real Time Operating System)                                          | -                | -        | 4        | 2         | -                           | -          | -                | 90                             | 60                                            | 150         |
|         | MEVD - 208                           | Audit Course-2                                                               |                  |          |          |           |                             |            |                  |                                |                                               |             |
|         |                                      | <b>Total</b>                                                                 | <b>14</b>        | <b>0</b> | <b>8</b> | <b>18</b> | <b>350</b>                  | <b>100</b> | <b>50</b>        | <b>180</b>                     | <b>120</b>                                    | <b>800</b>  |

L: Lecture-

T: Tutorial-

P: Practical

w.e.f. July-2025

*Sandip Nemane*  
*Megha Chaturvedi*

*Dr. G.P. Rathore*

*Dr. V. Chaurasia*

*Dr. Madhu Shandilya*  
 प्राध्यापक / Professor  
 इलेक्ट्रॉनिक्स एवं कम्युनिकेशन इंजीनियरिंग विभाग  
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*Anshul*

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, Bhopal (M.P.)**  
**TECHNOCRATS INSTITUTE OF TECHNOLOGY (An Autonomous Institute)**

**Scheme of Examination**

**Third Semester- Master of Technology**  
**(Micro Electronics and VLSI Design)**

| S.No. | Subject Code                       | Subject name           | Periods Per week |          |           | Credits   | Maximum Marks (Theory Slot) |            |                 | Maximum Marks (Practical Slot) |                                               | Total Marks |
|-------|------------------------------------|------------------------|------------------|----------|-----------|-----------|-----------------------------|------------|-----------------|--------------------------------|-----------------------------------------------|-------------|
|       |                                    |                        | L                | T        | P         |           | End. Sem. Exam.             | Test (Two) | Assignment/Quiz | End. Sem. Practical/Viva       | Practical Record/Assignment/Quiz/Presentation |             |
| 1.    | MEVD - 301<br>Program Elective - V | Elective V             | 3                | 0        | -         | 3         | 70                          | 20         | 10              | -                              | -                                             | 100         |
| 2.    | MEVD - 302<br>Open Elective        | Open Elective          | 3                | 0        | -         | 3         | 70                          | 20         | 10              | -                              | -                                             | 100         |
| 3.    | MEVD - 303                         | Seminar/Publication    | -                | -        | 4         | 2         | -                           | -          | -               | -                              | 100                                           | 100         |
| 4.    | MEVD - 304                         | Dissertation Phase - I | -                | 0        | 16        | 8         | -                           | -          | -               | 120                            | 80                                            | 200         |
|       |                                    | <b>Total</b>           | <b>6</b>         | <b>0</b> | <b>20</b> | <b>16</b> | <b>140</b>                  | <b>40</b>  | <b>20</b>       | <b>120</b>                     | <b>180</b>                                    | <b>500</b>  |

L: Lecture-

T: Tutorial-

P: Practical

w.e.f. July-2025

| MEVD - 301 Elective - V Program Elective - V |                                      |
|----------------------------------------------|--------------------------------------|
| (A)                                          | Opto-Electronics Integrated Circuits |
| (B)                                          | System On Chip (SOC) Design          |

| MEVD - 302 Open Elective |                     |
|--------------------------|---------------------|
| (A)                      | Business Analytics  |
| (B)                      | Operations Research |

*Sardip Nemach*  
*Megha Chaturvedi*  
*Dr. G.P. Rathor*

*(Dr. V. Chaurasia)*

*Dr. Madhu Shandilya*  
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*Dr. Arun Kumar*

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**Scheme of Examination**

**Fourth Semester- Master of Technology**  
**(Micro Electronics and VLSI Design)**

| S. No. | Subject Code | Subject name            | Periods Per week |   |    | Credits | Maximum Marks (Theory Slot) |            |                 | Maximum Marks (Practical Slot) |                                               | Total Marks |
|--------|--------------|-------------------------|------------------|---|----|---------|-----------------------------|------------|-----------------|--------------------------------|-----------------------------------------------|-------------|
|        |              |                         | L                | T | P  |         | End. Sem. Exam.             | Test (Two) | Assignment/Quiz | End. Sem. Practical/ Viva      | Practical Record/Assignment/Quiz/Presentation |             |
| 1.     | MEVD - 401   | Dissertation Phase - II |                  |   | 32 | 16      |                             |            |                 | 300                            | 200                                           | 500         |
|        |              | <b>Total</b>            | -                | - | 32 | 16      | -                           | -          | -               | 300                            | 200                                           | 500         |

**Total Credit for the programme 18+18+16+16=68**

**Audit Course 1 & 2**

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills.

*Sandip Hemade*

*Dr. G.P. RATHOR*

*Megha Chaturvedi*

*V. Chaurasia*

*Dr. Madhu Shandilya*  
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*Dr. Madhu Shandilya*