

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Annexure-XII

## Department of Engineering Mathematics & Computing

Course Outcome (CO's) July- Dec.-2021

### Co Attainment & Gap Analysis

| MAC- I Sem. |                        |  |                 |                 |              |              |                 |          |         |        |                     |               |              |
|-------------|------------------------|--|-----------------|-----------------|--------------|--------------|-----------------|----------|---------|--------|---------------------|---------------|--------------|
| S. No.      | Name of Faculty        | Course Name & Code                                 | Course Outcomes | CO Attainment % |              |              | CO Attainment % |          |         |        |                     | CO Attainment |              |
|             |                        |  |                 | I- Mid Term     | II- Mid Term | End Sem Exam | Direct          | InDirect | Overall | Target | Gap in Attainment % | Status        | Action Taken |
| 1           | Prof. Arun Kumar       | MAC-250101<br>Introduction to Computing            | CO-1            | 63.00           |              | 89.06        | 76.03           | 89.00    | 78.63   | 70.00  | -8.63               | Attained      |              |
|             |                        |  | CO-2            | 56.50           |              | 90.91        | 73.70           | 84.00    | 75.76   | 70.00  | -5.76               | Attained      |              |
|             |                        |  | CO-3            |                 | 90.00        | 90.90        | 90.45           | 80.00    | 88.36   | 70.00  | -18.36              | Attained      |              |
|             |                        |  | CO-4            |                 | 90.00        | 86.09        | 88.05           | 86.00    | 87.64   | 70.00  | -17.64              | Attained      |              |
|             |                        |  | CO-5            |                 | 92.50        | 87.50        | 90.00           | 81.00    | 88.20   | 70.00  | -18.20              | Attained      |              |
| 2           | Prof. Prabhakar Sharma | MAC 250102<br>Introduction to Computer Programming | CO-1            | 88.50           |              | 76.93        | 82.71           | 85.00    | 83.17   | 70.00  | -13.17              | Attained      |              |
|             |                        |  | CO-2            | 90.00           |              | 87.58        | 88.79           | 87.00    | 88.43   | 70.00  | -18.43              | Attained      |              |
|             |                        |  | CO-3            |                 | 81.25        | 74.16        | 77.70           | 89.00    | 79.96   | 70.00  | -9.96               | Attained      |              |
|             |                        |  | CO-4            |                 | 76.25        | 80.51        | 78.38           | 88.00    | 80.30   | 70.00  | -10.30              | Attained      |              |
|             |                        |  | CO-5            |                 | 83.75        | 84.53        | 84.14           | 90.00    | 85.31   | 70.00  | -15.31              | Attained      |              |
| 3           | Dr. V.P. Shinde        | MAC-250107<br>Probability & Random Process         | CO-1            | 75.50           |              | 81.83        | 78.67           | 90.00    | 80.93   | 70.00  | -10.93              | Attained      |              |
|             |                        |  | CO-2            | 79.50           |              | 82.20        | 80.85           | 91.00    | 82.88   | 70.00  | -12.88              | Attained      |              |
|             |                        |  | CO-3            |                 | 77.50        | 84.55        | 81.03           | 95.00    | 83.82   | 70.00  | -13.82              | Attained      |              |
|             |                        |  | CO-4            |                 | 81.25        | 82.89        | 82.07           | 94.00    | 84.45   | 70.00  | -14.45              | Attained      |              |
|             |                        |  | CO-5            |                 | 78.75        | 85.03        | 81.89           | 93.00    | 84.11   | 70.00  | -14.11              | Attained      |              |
| 4           | Dr. Minakshi           | MAC-250104<br>Element of Calculus                  | CO-1            | 72.50           |              | 80.35        | 76.42           | 92.75    | 79.69   | 70.00  | -9.69               | Attained      |              |
|             |                        |  | CO-2            | 73.50           |              | 77.10        | 75.30           | 88.41    | 77.92   | 70.00  | -7.92               | Attained      |              |
|             |                        |  | CO-3            |                 | 87.50        | 86.55        | 87.02           | 94.20    | 88.46   | 70.00  | -18.46              | Attained      |              |
|             |                        |  | CO-4            |                 | 86.25        | 82.22        | 84.24           | 86.96    | 84.78   | 70.00  | -14.78              | Attained      |              |
|             |                        |  | CO-5            |                 | 87.50        | 83.42        | 85.46           | 91.30    | 86.63   | 70.00  | -16.63              | Attained      |              |
| 5           | Prof. Rahul Sagwal     | 100015 Energy, Environment, Ecology & Society      | CO-1            | 79.50           |              | 81.77        | 80.64           | 89.00    | 71.01   | 70.00  | -1.01               | Attained      |              |
|             |                        |  | CO-2            | 84.00           |              | 85.11        | 84.56           | 84.00    | 71.01   | 70.00  | -1.01               | Attained      |              |
|             |                        |  | CO-3            |                 | 81.25        | 87.84        | 84.54           | 80.00    | 73.91   | 70.00  | -3.91               | Attained      |              |
|             |                        |  | CO-4            |                 | 81.25        | 85.00        | 83.12           | 86.00    | 83.70   | 70.00  | -13.70              | Attained      |              |
|             |                        |  | CO-5            |                 | 83.75        | 85.65        | 84.70           | 81.00    | 83.96   | 70.00  | -13.96              | Attained      |              |

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## MAC- III Sem.

| S. No. | Name of Faculty                 | Course Name & Code                               | Course Outcomes | CO Attainment % |              |              | CO Attainment % |           |         |        |                     | CO Attainment |              |
|--------|---------------------------------|--|-----------------|-----------------|--------------|--------------|-----------------|-----------|---------|--------|---------------------|---------------|--------------|
|        |                                 |  |                 | I- Mid Term     | II- Mid Term | End Sem Exam | Direct          | InDirect  | Overall | Target | Gap in Attainment % | Status        | Action Taken |
| 1      | Dr. Atul K. Ray; Dr. V P Shinde | MAC- 250301<br>Simulation Modelling and Analysis | CO-1            | 97.00           |              | 90.82        | 93.91           | 90.47619  | 93.22   | 70.00  | -23.22              | Attained      |              |
|        |                                 |  | CO-2            | 96.50           |              | 81.65        | 89.08           | 90.47619  | 89.36   | 70.00  | -19.36              | Attained      |              |
|        |                                 |  | CO-3            |                 | 97.50        | 86.81        | 92.15           | 95.238095 | 92.77   | 70.00  | -22.77              | Attained      |              |
|        |                                 |  | CO-4            |                 | 96.25        | 80.93        | 88.59           | 90.47619  | 88.97   | 70.00  | -18.97              | Attained      |              |
|        |                                 |  | CO-5            |                 | 95.00        | 83.18        | 89.09           | 95.238095 | 90.32   | 70.00  | -20.32              | Attained      |              |
| 2      | Prof. D. K. Jain                | MAC-250302<br>Discrete Mathematical Structures   | CO-1            | 84.00           |              | 90.13        | 87.06           | 76.811594 | 85.01   | 70.00  | -15.01              | Attained      |              |
|        |                                 |  | CO-2            | 91.00           |              | 82.86        | 86.93           | 79.710145 | 85.49   | 70.00  | -15.49              | Attained      |              |
|        |                                 |  | CO-3            |                 | 98.75        | 86.01        | 92.38           | 78.26087  | 89.56   | 70.00  | -19.56              | Attained      |              |
|        |                                 |  | CO-4            |                 | 95.00        | 84.69        | 89.84           | 75.362319 | 86.95   | 70.00  | -16.95              | Attained      |              |
|        |                                 |  | CO-5            |                 | 92.50        | 91.72        | 92.11           | 76.811594 | 89.05   | 70.00  | -19.05              | Attained      |              |
| 3      | Prof. Mir Shahanawaz Ahmad      | MAC-250303<br>Operating System Concepts          | CO-1            | 49.50           |              | 88.94        | 69.22           | 79.710145 | 71.32   | 70.00  | -1.32               | Attained      |              |
|        |                                 |  | CO-2            | 54.08           |              | 81.47        | 67.77           | 79.26087  | 70.07   | 70.00  | -0.07               | Attained      |              |
|        |                                 |  | CO-3            |                 | 66.25        | 84.69        | 75.47           | 81.15942  | 76.61   | 70.00  | -6.61               | Attained      |              |
|        |                                 |  | CO-4            |                 | 46.25        | 82.46        | 64.35           | 93.15942  | 70.11   | 70.00  | -0.11               | Attained      |              |
|        |                                 |  | CO-5            |                 | 76.05        | 85.89        | 80.97           | 79.710145 | 80.72   | 70.00  | -10.72              | Attained      |              |
| 4      | Prof. Prabhakar Sharma          | MAC - 250304<br>Data Structures and Algorithms   | CO-1            | 99.00           |              | 90.13        | 94.56           | 73.913043 | 90.43   | 70.00  | -20.43              | Attained      |              |
|        |                                 |  | CO-2            | 91.50           |              | 83.27        | 87.39           | 68.115942 | 83.53   | 70.00  | -13.53              | Attained      |              |
|        |                                 |  | CO-3            |                 | 91.25        | 89.04        | 90.14           | 68.115942 | 85.74   | 70.00  | -15.74              | Attained      |              |
|        |                                 |  | CO-4            |                 | 96.25        | 84.69        | 90.47           | 66.666667 | 85.71   | 70.00  | -15.71              | Attained      |              |
|        |                                 |  | CO-5            |                 | 95.00        | 84.32        | 89.66           | 63.768116 | 84.48   | 70.00  | -14.48              | Attained      |              |
| 5      | Dr. J. K. Muthele               | MAC-250305<br>Numerical Techniques               | CO-1            | 89.50           |              | 90.43        | 89.96           | 89.00     | 89.77   | 70.00  | -19.77              | Attained      |              |
|        |                                 |  | CO-2            | 82.00           |              | 84.62        | 83.31           | 84.00     | 83.45   | 70.00  | -13.45              | Attained      |              |
|        |                                 |  | CO-3            |                 | 98.75        | 90.61        | 94.68           | 80.00     | 91.74   | 70.00  | -21.74              | Attained      |              |
|        |                                 |  | CO-4            |                 | 93.75        | 73.93        | 83.84           | 86.00     | 84.27   | 70.00  | -14.27              | Attained      |              |
|        |                                 |  | CO-5            |                 | 96.25        | 94.65        | 95.45           | 81.00     | 92.56   | 70.00  | -22.56              | Attained      |              |

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| I Sem. ( Mathematics- I & Linear Algebra) |                      |                              |                 |                 |              |              |                 |          |         |        |                     |               |              |
|---|----------------------|------------------------------|-----------------|-----------------|--------------|--------------|-----------------|----------|---------|--------|---------------------|---------------|--------------|
| S. No.                                    | Name of Faculty      | Course Name & Code           | Course Outcomes | CO Attainment % |              |              | CO Attainment % |          |         |        |                     | CO Attainment |              |
|   |                      |                              |                 | I- Mid Term     | II- Mid Term | End Sem Exam | Direct          | InDirect | Overall | Target | Gap in Attainment % | Status        | Action Taken |
| 1   | Dr. Divya Chaturvedi | CE-100011 Mathematics-I      | CO-1            | 79.00           |              | 89.73        | 84.36           | 68.52    | 81.19   | 70.00  | -11.19              | Attained      |              |
|   |                      |                              | CO-2            | 82.00           |              | 87.50        | 84.75           | 74.07    | 82.61   | 70.00  | -12.61              | Attained      |              |
|   |                      |                              | CO-3            |                 | 75.00        | 84.99        | 79.99           | 67.59    | 77.51   | 70.00  | -7.51               | Attained      |              |
|   |                      |                              | CO-4            |                 | 76.25        | 84.94        | 80.59           | 72.22    | 78.92   | 70.00  | -8.92               | Attained      |              |
|   |                      |                              | CO-5            |                 | 81.25        | 89.74        | 85.49           | 69.44    | 82.28   | 70.00  | -12.28              | Attained      |              |
| 2   | Dr. Minakshi Dahiya  | AU/ME-100011 Mathematics-I   | CO-1            | 67.84           |              | 87.69        | 80.95           | 87.18    | 82.20   | 70.00  | -12.20              | Attained      |              |
|   |                      |                              | CO-2            | 76.00           |              | 86.55        | 76.19           | 84.62    | 77.88   | 70.00  | -7.88               | Attained      |              |
|   |                      |                              | CO-3            |                 | 93.75        | 81.88        | 78.57           | 84.62    | 79.78   | 70.00  | -9.78               | Attained      |              |
|   |                      |                              | CO-4            |                 | 64.80        | 87.71        | 76.19           | 84.62    | 77.88   | 70.00  | -7.88               | Attained      |              |
|   |                      |                              | CO-5            |                 | 79.93        | 88.49        | 73.81           | 82.05    | 75.46   | 70.00  | -5.46               | Attained      |              |
| 3   | Dr. ATUL KUMAR RAY   | LINEAR ALGEBRA (250100) AIML | CO-1            | 89.50           |              | 86.20        | 87.85           | 96.30    | 89.54   | 70.00  | -19.54              | Attained      |              |
|   |                      |                              | CO-2            | 92.50           |              | 92.46        | 92.48           | 85.19    | 91.02   | 70.00  | -21.02              | Attained      |              |
|   |                      |                              | CO-3            |                 | 91.25        | 87.68        | 89.46           | 88.89    | 89.35   | 70.00  | -19.35              | Attained      |              |
|   |                      |                              | CO-4            |                 | 91.25        | 86.49        | 88.87           | 86.67    | 88.43   | 70.00  | -18.43              | Attained      |              |
|   |                      |                              | CO-5            |                 | 96.25        | 93.11        | 94.68           | 89.63    | 93.67   | 70.00  | -23.67              | Attained      |              |
| 4   | Dr. ATUL KUMAR RAY   | EE-100011 Mathematics-I      | CO-1            | 80.65           |              | 87.66        | 84.15           | 87.18    | 84.76   | 70.00  | -14.76              | Attained      |              |
|   |                      |                              | CO-2            | 85.29           |              | 93.51        | 89.40           | 96.30    | 90.78   | 70.00  | -20.78              | Attained      |              |
|   |                      |                              | CO-3            |                 | 98.75        | 92.29        | 95.52           | 84.62    | 93.34   | 70.00  | -23.34              | Attained      |              |
|   |                      |                              | CO-4            |                 | 96.25        | 88.47        | 92.36           | 82.05    | 90.30   | 70.00  | -20.30              | Attained      |              |
|   |                      |                              | CO-5            |                 | 91.25        | 92.43        | 91.84           | 96.30    | 92.73   | 70.00  | -22.73              | Attained      |              |
| 5   | Dr. Divya Chaturvedi | AIR Linear Algebra-250100    | CO-1            | 75.00           |              | 91.09        | 83.05           | 85.71    | 83.58   | 70.00  | -13.58              | Attained      |              |
|   |                      |                              | CO-2            | 83.00           |              | 85.91        | 84.46           | 79.37    | 83.44   | 70.00  | -13.44              | Attained      |              |
|   |                      |                              | CO-3            |                 | 91.25        | 90.75        | 91.00           | 76.19    | 88.04   | 70.00  | -18.04              | Attained      |              |
|   |                      |                              | CO-4            |                 | 96.25        | 86.82        | 91.54           | 73.81    | 87.99   | 70.00  | -17.99              | Attained      |              |
|   |                      |                              | CO-5            |                 | 95.00        | 87.42        | 91.21           | 72.22    | 87.41   | 70.00  | -17.41              | Attained      |              |
| 6   | Dr. Divya Chaturvedi | CSD- Linear Algebra-250100   | CO-1            | 81.00           |              | 90.55        | 85.78           | 81.61    | 84.94   | 70.00  | -14.94              | Attained      |              |
|   |                      |                              | CO-2            | 82.50           |              | 89.61        | 86.05           | 75.86    | 84.02   | 70.00  | -14.02              | Attained      |              |
|   |                      |                              | CO-3            |                 | 87.50        | 86.01        | 86.76           | 73.56    | 84.12   | 70.00  | -14.12              | Attained      |              |
|   |                      |                              | CO-4            |                 | 88.75        | 78.66        | 83.71           | 79.31    | 82.83   | 70.00  | -12.83              | Attained      |              |
|   |                      |                              | CO-5            |                 | 93.75        | 87.32        | 90.54           | 77.01    | 87.83   | 70.00  | -17.83              | Attained      |              |

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|---|---------------------|-----------------------------------|------|-------|-------|-------|-------|-------|-------|-------|--------|----------|
| 7 | Dr. Minakshi Dahiya | Linear Algebra (EE -IoT - 250100) | CO-1 | 71.04 |       | 89.89 | 80.46 | 75.27 | 79.42 | 70.00 | -9.42  | Attained |
|   |                     |                                   | CO-2 | 82.16 |       | 83.78 | 82.97 | 79.57 | 82.29 | 70.00 | -12.29 | Attained |
|   |                     |                                   | CO-3 |       | 82.50 | 87.23 | 84.86 | 80.65 | 84.02 | 70.00 | -14.02 | Attained |
|   |                     |                                   | CO-4 |       | 72.50 | 85.86 | 79.18 | 81.72 | 79.69 | 70.00 | -9.69  | Attained |
|   |                     |                                   | CO-5 |       | 61.25 | 88.44 | 74.84 | 81.72 | 76.22 | 70.00 | -6.22  | Attained |
| 8 | Dr. Minakshi Dahiya | Linear Algebra (IT -IoT - 250100) | CO-1 | 86.95 |       | 79.66 | 83.30 | 82.14 | 83.07 | 70.00 | -13.07 | Attained |
|   |                     |                                   | CO-2 | 79.79 |       | 84.74 | 82.26 | 80.95 | 82.00 | 70.00 | -12.00 | Attained |
|   |                     |                                   | CO-3 |       | 86.25 | 90.54 | 88.39 | 85.71 | 87.86 | 70.00 | -17.86 | Attained |
|   |                     |                                   | CO-4 |       | 78.36 | 88.61 | 83.48 | 78.57 | 82.50 | 70.00 | -12.50 | Attained |
|   |                     |                                   | CO-5 |       | 73.75 | 87.79 | 80.77 | 77.38 | 80.09 | 70.00 | -10.09 | Attained |
| 9 | Dr. ATUL KUMAR RAY  | Linear Algebra (AIDS -250100)     | CO-1 | 90.00 |       | 88.76 | 89.38 | 78.26 | 87.16 | 70.00 | -17.16 | Attained |
|   |                     |                                   | CO-2 | 96.50 |       | 84.56 | 90.53 | 75.36 | 87.50 | 70.00 | -17.50 | Attained |
|   |                     |                                   | CO-3 |       | 97.50 | 85.57 | 91.54 | 76.81 | 88.59 | 70.00 | -18.59 | Attained |
|   |                     |                                   | CO-4 |       | 98.75 | 84.69 | 91.72 | 76.81 | 88.74 | 70.00 | -18.74 | Attained |
|   |                     |                                   | CO-5 |       | 97.50 | 85.80 | 91.65 | 79.71 | 89.26 | 70.00 | -19.26 | Attained |

## Mathematics -II (100001) & Probability & Random Process (250300)

| S. No. | Name of Faculty  | Course Name & Code                          | Course Outcomes | CO Attainment % |              |              | CO Attainment % |          |         |        |                     | CO Attainment |              |
|--------|------------------|---|-----------------|-----------------|--------------|--------------|-----------------|----------|---------|--------|---------------------|---------------|--------------|
|        |                  |   |                 | I- Mid Term     | II- Mid Term | End Sem Exam | Direct          | InDirect | Overall | Target | Gap in Attainment % | Status        | Action Taken |
| 1      | Dr. J. K. Mutele | AU-100001 Mathematics-II                    | CO-1            | 76.59           |              | 94.20        | 85.40           | 55.56    | 79.43   | 70.00  | -9.43               | Attained      |              |
|        |                  |   | CO-2            | 77.04           |              | 98.75        | 87.90           | 62.96    | 82.91   | 70.00  | -12.91              | Attained      |              |
|        |                  |   | CO-3            |                 | 91.25        | 94.83        | 93.04           | 59.26    | 86.28   | 70.00  | -16.28              | Attained      |              |
|        |                  |   | CO-4            |                 | 96.25        | 94.44        | 95.35           | 59.26    | 88.13   | 70.00  | -18.13              | Attained      |              |
|        |                  |   | CO-5            |                 | 95.00        | 97.26        | 96.13           | 66.67    | 90.24   | 70.00  | -20.24              | Attained      |              |
| 2      | Dr. J. K. Mutele | EE(IoT)-250300 Probability & Random Process | CO-1            | 93.95           |              | 95.14        | 94.54           | 87.18    | 93.07   | 70.00  | -23.07              | Attained      |              |
|        |                  |   | CO-2            | 92.00           |              | 99.65        | 95.83           | 84.62    | 93.58   | 70.00  | -23.58              | Attained      |              |
|        |                  |   | CO-3            |                 | 96.25        | 86.31        | 91.28           | 84.62    | 89.95   | 70.00  | -19.95              | Attained      |              |
|        |                  |   | CO-4            |                 | 91.18        | 97.29        | 94.24           | 84.62    | 92.31   | 70.00  | -22.31              | Attained      |              |
|        |                  |   | CO-5            |                 | 93.75        | 97.78        | 95.76           | 82.05    | 93.02   | 70.00  | -23.02              | Attained      |              |
| 3      | Dr. J. K. Mutele | MAC-250305 Numerical Techniques             | CO-1            | 95.00           |              | 95.16        | 95.08           | 96.30    | 95.32   | 70.00  | -25.32              | Attained      |              |
|        |                  |   | CO-2            | 93.89           |              | 95.38        | 94.64           | 85.19    | 92.75   | 70.00  | -22.75              | Attained      |              |
|        |                  |   | CO-3            |                 | 91.25        | 96.04        | 93.65           | 88.89    | 92.69   | 70.00  | -22.69              | Attained      |              |
|        |                  |   | CO-4            |                 | 92.50        | 94.78        | 93.64           | 86.67    | 92.25   | 70.00  | -22.25              | Attained      |              |

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|----|--------------------|---------------------------|------|-------|--------|-------|-------|-------|-------|-------|--------|----------|
|    |                    |                           | CO-5 |       | 95.00  | 96.81 | 95.90 | 89.63 | 94.65 | 70.00 | -24.65 | Attained |
| 4  | Prof. A. S. Ojha   | ME-100001 Mathematics-II  | CO-1 | 80.65 |        | 87.66 | 84.15 | 87.18 | 84.76 | 70.00 | -14.76 | Attained |
|    |                    |                           | CO-2 | 85.29 |        | 93.51 | 89.40 | 96.30 | 90.78 | 70.00 | -20.78 | Attained |
|    |                    |                           | CO-3 |       | 98.75  | 92.29 | 95.52 | 84.62 | 93.34 | 70.00 | -23.34 | Attained |
|    |                    |                           | CO-4 |       | 96.25  | 88.47 | 92.36 | 82.05 | 90.30 | 70.00 | -20.30 | Attained |
|    |                    |                           | CO-5 |       | 91.25  | 92.43 | 91.84 | 96.30 | 92.73 | 70.00 | -22.73 | Attained |
| 5  | Prof. A. S. Ojha   | EE-100001 Mathematics-II  | CO-1 | 92.00 |        | 95.51 | 93.75 | 88.89 | 92.78 | 70.00 | -22.78 | Attained |
|    |                    |                           | CO-2 | 97.97 |        | 96.01 | 96.99 | 86.67 | 94.93 | 70.00 | -24.93 | Attained |
|    |                    |                           | CO-3 |       | 96.25  | 96.67 | 96.46 | 89.63 | 95.09 | 70.00 | -25.09 | Attained |
|    |                    |                           | CO-4 |       | 100.00 | 96.03 | 98.02 | 84.62 | 95.34 | 70.00 | -25.34 | Attained |
|    |                    |                           | CO-5 |       | 95.00  | 99.31 | 97.15 | 82.05 | 94.13 | 70.00 | -24.13 | Attained |
| 6  | Dr. D. K. Jain     | CM-100001 Mathematics-II  | CO-1 | 82.89 |        | 89.39 | 86.14 | 76.81 | 84.28 | 70.00 | -14.28 | Attained |
|    |                    |                           | CO-2 | 89.00 |        | 87.12 | 88.06 | 79.71 | 86.39 | 70.00 | -16.39 | Attained |
|    |                    |                           | CO-3 |       | 91.25  | 84.65 | 87.95 | 78.26 | 86.01 | 70.00 | -16.01 | Attained |
|    |                    |                           | CO-4 |       | 96.25  | 63.75 | 80.00 | 75.36 | 79.07 | 70.00 | -9.07  | Attained |
|    |                    |                           | CO-5 |       | 95.00  | 87.07 | 91.03 | 76.81 | 88.19 | 70.00 | -18.19 | Attained |
| 7  | Dr. S. K. Bhardwaj | ET-100001 Mathematics-II  | CO-1 | 76.59 |        | 95.51 | 86.05 | 75.36 | 83.91 | 70.00 | -13.91 | Attained |
|    |                    |                           | CO-2 | 77.04 |        | 95.38 | 86.21 | 76.81 | 84.33 | 70.00 | -14.33 | Attained |
|    |                    |                           | CO-3 |       | 91.25  | 96.04 | 93.65 | 79.71 | 90.86 | 70.00 | -20.86 | Attained |
|    |                    |                           | CO-4 |       | 96.25  | 94.78 | 95.52 | 78.26 | 92.07 | 70.00 | -22.07 | Attained |
|    |                    |                           | CO-5 |       | 95.00  | 98.68 | 96.84 | 81.05 | 93.68 | 70.00 | -23.68 | Attained |
| 8  | Dr. D. K. Mishra   | EC-100001 Mathematics-II  | CO-1 | 86.42 |        | 88.91 | 87.66 | 78.36 | 85.80 | 70.00 | -15.80 | Attained |
|    |                    |                           | CO-2 | 89.89 |        | 95.38 | 92.64 | 75.36 | 89.18 | 70.00 | -19.18 | Attained |
|    |                    |                           | CO-3 |       | 86.25  | 94.79 | 90.52 | 76.81 | 87.78 | 70.00 | -17.78 | Attained |
|    |                    |                           | CO-4 |       | 88.36  | 92.28 | 90.32 | 79.71 | 88.20 | 70.00 | -18.20 | Attained |
|    |                    |                           | CO-5 |       | 66.25  | 92.43 | 79.34 | 78.26 | 79.12 | 70.00 | -9.12  | Attained |
| 9  | Prof. R. S. Tomar  | CSE-100001 Mathematics-II | CO-1 | 76.59 |        | 93.98 | 85.29 | 78.26 | 83.88 | 70.00 | -13.88 | Attained |
|    |                    |                           | CO-2 | 77.04 |        | 95.38 | 86.21 | 75.36 | 84.04 | 70.00 | -14.04 | Attained |
|    |                    |                           | CO-3 |       | 91.25  | 96.04 | 93.65 | 76.81 | 90.28 | 70.00 | -20.28 | Attained |
|    |                    |                           | CO-4 |       | 96.25  | 94.16 | 95.20 | 76.81 | 91.53 | 70.00 | -21.53 | Attained |
|    |                    |                           | CO-5 |       | 95.00  | 94.93 | 94.97 | 79.71 | 91.91 | 70.00 | -21.91 | Attained |
| 10 | Prof. R. S. Tomar  | IT-100001 Mathematics-II  | CO-1 | 90.00 |        | 92.03 | 91.02 | 78.26 | 88.47 | 70.00 | -18.47 | Attained |
|    |                    |                           | CO-2 | 88.89 |        | 93.61 | 91.25 | 75.36 | 88.07 | 70.00 | -18.07 | Attained |
|    |                    |                           | CO-3 |       | 91.25  | 93.84 | 92.54 | 76.81 | 89.40 | 70.00 | -19.40 | Attained |
|    |                    |                           | CO-4 |       | 96.25  | 94.78 | 95.52 | 84.62 | 93.34 | 70.00 | -23.34 | Attained |
|    |                    |                           | CO-5 |       | 95.00  | 93.68 | 94.34 | 82.05 | 91.88 | 70.00 | -21.88 | Attained |
| 11 | Prof. R. S.        | CE-100001                 | CO-1 | 76.59 |        | 96.13 | 86.36 | 76.81 | 84.45 | 70.00 | -14.45 | Attained |



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

|    |                  |   |      |       |       |       |       |       |       |       |        |          |
|----|------------------|---|------|-------|-------|-------|-------|-------|-------|-------|--------|----------|
|    | Tomar            | Mathematics-II                                    | CO-2 | 77.04 |       | 94.97 | 86.00 | 84.62 | 85.73 | 70.00 | -15.73 | Attained |
|    |                  |   | CO-3 |       | 90.00 | 95.06 | 92.53 | 82.05 | 90.44 | 70.00 | -20.44 | Attained |
|    |                  |   | CO-4 |       | 91.25 | 95.22 | 93.24 | 96.30 | 93.85 | 70.00 | -23.85 | Attained |
|    |                  |   | CO-5 |       | 85.00 | 97.47 | 91.23 | 84.62 | 89.91 | 70.00 | -19.91 | Attained |
| 12 | Dr. D. K. Mishra | AIR-250300<br>(Probability & Random Process)      | CO-1 | 92.97 |       | 97.47 | 95.22 | 76.81 | 91.54 | 70.00 | -21.54 | Attained |
|    |                  |   | CO-2 | 76.50 |       | 97.47 | 86.98 | 79.71 | 85.53 | 70.00 | -15.53 | Attained |
|    |                  |   | CO-3 |       | 92.50 | 97.47 | 94.98 | 78.26 | 91.64 | 70.00 | -21.64 | Attained |
|    |                  |   | CO-4 |       | 93.75 | 97.47 | 95.61 | 75.36 | 91.56 | 70.00 | -21.56 | Attained |
| 13 | Dr. D. K. Mishra | IT (IoT)-250300<br>(Probability & Random Process) | CO-5 |       | 88.75 | 97.47 | 93.11 | 76.81 | 89.85 | 70.00 | -19.85 | Attained |
|    |                  |   | CO-1 | 89.95 |       | 97.47 | 93.71 | 84.62 | 91.89 | 70.00 | -21.89 | Attained |
|    |                  |   | CO-2 | 73.00 |       | 97.47 | 85.23 | 82.05 | 84.60 | 70.00 | -14.60 | Attained |
|    |                  |   | CO-3 |       | 92.50 | 97.47 | 94.98 | 96.30 | 95.25 | 70.00 | -25.25 | Attained |
|    |                  |   | CO-4 |       | 96.25 | 97.47 | 96.86 | 85.19 | 94.52 | 70.00 | -24.52 | Attained |
|    |                  |   | CO-5 |       | 81.25 | 97.47 | 89.36 | 86.22 | 88.73 | 70.00 | -18.73 | Attained |



**Dr. J. K. Mutehele**  
(OBE- Coordinator)



**Dr. Vikas Shinde**  
(Professor and HoD)