

## **Sardar Patel Institute of Technology** Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

| Course<br>Code | Course Name  | Teaching Scheme<br>(Hrs/week) |   |       | Credits Assigned |    |   |       |
|----------------|--|-------------------------------|---|-------|------------------|----|---|-------|
| Code           |  | L                             | T | P     | L                | T  | P | Total |
|                |  |                               |   | 2     |                  |    | 1 | 1     |
| EXL602         | Digital Signal Processing and<br>Processors Laboratory | Examination Scheme            |   |       |                  |    |   |       |
|                |  | ISE                           |   |       | ESE              |    |   | Total |
|                |  | Prac                          |   | tical | Oral             |    |   |       |
|                |  | 4                             | 0 | -     | -                | 20 |   | 60    |

| <b>Pre-requisite Co</b>  | urse Co | des   |  |  |  |
|--|---------|---|--|--|--|
| After successful completion of the course, student will be able to     |         |   |  |  |  |
|  | CO1     | Test Fast Fourier Transform Algorithm                       |  |  |  |
| Course   | CO2     | Design a Digital Filter                                     |  |  |  |
| Outcomes CO3 Adapt open source tools for signal processing application |         | Adapt open source tools for signal processing application   |  |  |  |
|  | CO4     | Demonstrate Real Time Signal Processing using DSP Processor |  |  |  |

| Exp. No.    | Experiment Details Re                    |  |   |  |
|-------------|--|--|---|--|
| 1           | Convolution and Correlation              |  |   |  |
| 2           | Discrete Fourier Transform               |  | 5 |  |
| 3           | Fast Fourier Transform                   |  | 5 |  |
| 4           | Overlap Add Method / Overlap Save Method |  | 5 |  |
| 5           | Digital IIR Filter Design                |  | 5 |  |
| 6           | Digital FIR Filter Design                |  | 5 |  |
| 7           | Real Time Signal Processing              |  | 5 |  |
| 8           | Signal Processing Application            |  | 5 |  |
| Total Marks |  |  |   |  |

## **References:**

As recommended by faculty.