| Course Code                    |  | TKEE163224P  |                           |
|--------------------------------|--|--|---------------------------|
| Course Name                    |  | Digital Signal Processing (DSP) Devices Lab. Work  |                           |
| Course Instructors             |  | Litasari   |                           |
| Course Type                    |  | Selected Elective  |                           |
| Course Classification          |  | Engineering Topics   |                           |
| Credit / Contact Hour per Week |  | 3 / 150 minutes per Week   |                           |
| Course Description             |  | This course emphasizes the practical aspects of digital signal<br>processing field, i.e, DSP devices utilization and design using<br>logic gates or microprossesors. |                           |
| Prerequisites Courses          |  | -  |                           |
| Covered Student Outcome        |  | Engineering Design (c)<br>Modern Tools Utilization (e)   |                           |
| Learning Outcome               | <ol> <li>Students are expected to understand the concept of DSP devices</li> <li>Students are able to generate an algorithm for DSP engineering</li> <li>Students know the cutting-edge DSP devices that are available today</li> <li>Students are able to use programming software for DSP devices</li> </ol> |  |                           |
| Topic                          | <ol> <li>Introduction to DSP Devices</li> <li>Introduction to DSP software: Xilinx</li> <li>Logic gates techniques in Xilinx</li> <li>Introduction to advanced DSP in Xilinx</li> <li>Final Project: DSP Design using Xilinx</li> </ol>  |  |                           |
| Direct Asessment               |  |  | 8                         |
|                                | Direct Asess   | sment Plan   | Measured Learning Outcome |
|                                | Report 1   |  | L01, L03                  |
|                                | Report 2   |  | LO2                       |
|                                | Report 3   |  | LO2, LO4                  |
| Final Assign                   |  | ment   | LO2. LO4                  |
| Indirect Assesment             | Questionnaire  | Questionnaire (EDOM)   |                           |
| References                     |  |  |                           |