VE230725 Sistem Kontrol Lanjut

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| Icon  Description automatically generated | | **Institut Teknologi Sepuluh Nopember**  **Fakultas Vokasi**  **Departemen Teknik Elektro Otomasi**  **Program Studi Sarjana Terapan Teknologi Rekayasa Otomasi** | | | | | | | | | | | | **Kode Dokumen**  **2.3.2.3.6.4.1** | |
| **RENCANA PEMBELAJARAN SEMESTER** | | | | | | | | | | | | | | | |
| **MATA KULIAH (MK)** | | | | **KODE** | | **Rumpun MK** | | | **BOBOT (SKS/menit)** | | | **SEMESTER** | | **Tgl Penyusunan** | |
| **Sistem Kontrol Lanjut** | | | | VE230725 | |  | | | **T= 2** | | **P= 1** | 7 | | 20/02/2023 | |
| **100 menit** | | **170 menit** |
| **OTORISASI** | | | | **Pengembang RPS** | | | | **Koordinator RMK** | | | | **Ketua PRODI** | | | |
|  | | | |  | | | | Imam Arifin, S.T., M.T. | | | |
| **Capaian Pembelajaran (CP)** | | **CPL-PRODI yang dibebankan pada MK** | | | | | | | | | | |  | | |
| Kode CPL Deskripsi CPL | | | | | | | | | | |  | | |
| CPL-3 Lifelong Learning  CPL-7 Engineering Knowledge  CPL-8 Investigation  CPL-10 Modern Resource/ Tool Usage | | | | | | | | | | |  | | |
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| **Capaian Pembelajaran Mata Kuliah (CPMK)** | | | | | |  | | | | | | | |
| CPMK-1 Mampu memahami analisis dan perancangan sistem kontrol menggunakan state-space  CPMK-2 Mampu menamahi dan menerapkan perancangan kontroler *state-feedback* dan perancangan *observer*  CPMK-3 Mampu memahami konsep dasar dan mengidentifikasi penerapan sistem kontrol optimal, adaptif, serta robust di industri  CPMK-4 Mampu mengetahui konsep dasar sistem kontrol dengan kecerdasan buatan | | | | | | | | | | | | | |
|  | | **Matrik CPL – CPMK**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | CPMK | CPL-3 | CPL-7 | CPL-8 | CPL-10 | | CPMK-1 | V | V |  |  | | CPMK-2 |  | V | V |  | | CPMK-3 |  |  | V | V | | CPMK-4 | V |  |  | V | | | | | | | | | | | | | | |
| **Deskripsi Singkat MK** | |  | | | | | | | | | | | | | |
| **Pokok Bahasan/ Materi Pembelajaran** | | 1, Root Locus  2. Bode Diagram  3. Compensator Design  4. State Space Analysis  5. State Feedback Controller Design  6. Observer Design  7. Pengenalan Sistem Kontrol Optimal  8. Pengenalan Sistem Kontrol Adaptif  9. Pengenalan Sistem Kontrol Robust | | | | | | | | | | | | | |
| **Pustaka** | | **Utama :** | |  | | | | | | | | | | | |
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| **Pendukung :** | |  | | | | | | | | | | | |
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| **Media Pembelajaran** | |  | | | | | | | | | | | | | |
| **Dosen Pengampu** | |  | | | | | | | | | | | | | |
| **Matakuliah syarat** | | Proyek 1: Desain Sistem Kontrol, Sistem Kontrol Proses | | | | | | | | | | | | | |
| **Mg Ke-** | **Kemampuan akhir tiap tahapan belajar**  **(Sub-CPMK)** | | **Penilaian** | | | | **Bentuk Pembelajaran,**  **Metode Pembelajaran,**  **Penugasan Mahasiswa,**  **[ Estimasi Waktu]** | | | | | **Materi Pembelajaran**  **[ Pustaka ]** | | | **Bobot Penilaian (%)** |
| **Indikator** | | **Kriteria & Bentuk** | | **Luring (*offline*)** | | | **Daring (*online*)** | |
| **(1)** | **(2)** | | **(3)** | | **(4)** | | **(5)** | | | **(6)** | | **(7)** | | | **(8)** |
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| 8 | Evaluasi Tengah Semester / Ujian Tengah Semester | |  | |  | |  | | |  | |  | | |  |
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| 16 | Evaluasi Akhir Semester / Ujian Akhir Semester | |  | |  | |  | | |  | |  | | |  |