

Course Code	TKEE163221											
Course Name	Images Processing											
Course Instructors	Hanung Adi Nugroho, Indah Soesanti, Sunu Wibirama											
Course Type	Elective											
Course Classification	Engineering Topics											
Credit / Contact Hour per Week	3 / 150 minutes per Week											
Course Description	This course learns fundamental concepts and theories must be known descriptively or simulated, in the method of processing and its application. These subjects include the definition and scope of image processing techniques, image perception, image digitization, image overlapping, image compression, image enhancement, noise screening on images, image analysis and feature extraction in imagery for image classification and recognition.											
Prerequisites Courses												
Covered Student Outcome	<b>Development of Engineering Solution (b)</b> <b>Engineering Design (c)</b> <b>Modern Tools Utilization ( e )</b>											
Learning Outcome	1. Students are able to quickly understand and be able to solve real problems and the future of image processing technology in the future.											
Topic	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Image Perception</li> <li>3. Image Enhancement</li> <li>4. Image Filtering</li> <li>5. Image Compression</li> <li>6. Image Analysis</li> <li>7. Image restoration</li> <li>8. Image segmentation</li> <li>9. Color image processing</li> <li>10. Morphological image processing</li> <li>11. Feature extraction (Texture)</li> <li>12. Feature extraction (Shape and contour)</li> </ol>											
Direct Assessment	<table border="1"> <thead> <tr> <th>Direct Assessment Plan</th> <th>Measured Learning Outcome</th> </tr> </thead> <tbody> <tr> <td>Assignments</td> <td>LO1</td> </tr> <tr> <td>Mid Exam</td> <td>LO1</td> </tr> <tr> <td>Final Exam</td> <td>LO1</td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		Direct Assessment Plan	Measured Learning Outcome	Assignments	LO1	Mid Exam	LO1	Final Exam	LO1		
Direct Assessment Plan	Measured Learning Outcome											
Assignments	LO1											
Mid Exam	LO1											
Final Exam	LO1											
Indirect Assesment	Questionnaire (EDOM)											
References	<p>[1] Jain, A. K., 1989, Fundamental of Digital Image Processing, Prentice Hall</p> <p>[2] Gonzalez, R.C., R.E. Woods, 2008, "Digital Image Processing, Third Edition", Pearson Prentice Hall, New Jersey.</p>											