

**GEDIZ UNIVERSITY**  
**COMPUTER ENGINEERING DEPARTMENT**

**COM 497- SENIOR DESIGN PROJECT I**  
**PROPOSAL FORM for INSTRUCTORS**

Academic Year: 2015-2016

Semester: Fall

<b>1. Logistics</b>	
<b>Supervisor :</b> Asst. Prof. Dr. Ibrahim Furkan Ince <b>Proposal No. :</b> 1 <b>Proposal Date :</b> 05/10/2015 <b>Number of Students :</b> 3 <b>Prerequisites :</b> Image processing knowledge including programming skills with Java or C++.	<b>Co-supervisor:</b>
<b>2. Subject Classification</b>	
Image Processing, Computer Vision, Pattern Recognition	
<b>2. Title of Project</b>	
Video based Hand Gesture Recognition System for Disabled People	
<b>3. Description of the Project <sup>1</sup></b>	
Hand Gesture Recognition is the fundamental step of sign language for those who have difficulty in speaking or hearing. By using the camera video, students are expected to develop such applications which can interpret gestures into semantic movements which will help disabled people to navigate their life by means of their sign language.	
<b>4. Scope of the Project</b>	
Students who are good at especially on programming are expected to apply to this project if they have a background on image processing. Scope of the project is to develop hand gesture recognition software for disabled people who cannot speak or hear.	
<b>5. Goals of the Project</b>	
<ul style="list-style-type: none"><li>- Students will experience a software development cycle by their team mates</li><li>- Students will experience the development of computer vision based application</li></ul>	
<b>4. Key techniques</b>	
Project includes: Shape recognition and machine learning based training of gestures.	
<b>5. Project outcome</b>	
A video based hand gesture recognition software	
<b>6. Hardware/Software/Lab/ equipment requirements</b>	
<ul style="list-style-type: none"><li>- Java or C++ as the programming language</li></ul>	

<sup>1</sup> If necessary please use a separate sheet