

GEDIZ UNIVERSITY
COMPUTER ENGINEERING DEPARTMENT

BIL 497/ COM 497- SENIOR DESIGN PROJECT I
PROPOSAL FORM for INSTRUCTORS

Academic Year: 2015-2016

Semester: Fall

1. Logistics	
Supervisor : Necati Ercan Özgencil Proposal No. : 1 Proposal Date : 12.10.2015 Number of Students : 1 Prerequisites : 1- Algorithms, 2- Image Processing Contest Project or not¹ ? : No	Co-supervisor:
2. Subject Classification	
Game Theory, Algorithms, Image processing, Mobile phone application	
3. Title of Project	
Sudoku solver	
4. Description of the Project²	
Develop a mobile application to solve Sudoku puzzles from its image. In the first step the image file is converted to structured input for the solver. Results are shown to user in the mobile phone. The initial step includes image processing and later stage includes developing an algorithm to solve Sudoku game. To make the system run fast, a web service is build to get image file as input and return solution of the puzzle. The mobile phone will call this web service and display returned results to the user in some fashion.	
5. Scope of the Project	
Midsize mobile application with midsize webservice backend.	
6. Goals of the Project :	
1- Learn how to design, implement, test and run mobile applications. 2- Learn how to design, implement, test and run web service applications. 3- Learn developing an efficient algorithm to solve a specific and complex problem.	
7. Key techniques	
Mobile application development (initially using Android, want to extend it to become Iphone application) Dynamic Programming (if applicable and feasible) Web Services, Image processing.	
8. Project outcome	
A fun game application, to prove that computers can act as smart as people.	
9. Hardware/Software/Lab/ Equipment Requirements	

¹ Joining to GBYF is a must and you get a point for it

² If necessary please use a separate sheet