COM 497- SENIOR DESIGN PROJECT I
PROPOSAL FORM for INSTRUCTORS

Academic Year: 2015-2016   **Semester: Fall**

1.Logistics	
Supervisor : Hürevren Kılıç **Co-supervisor:** **Proposal No. :** 3 **Proposal Date :** 13.10.2015 **Number of Students :** 2-3 **Prerequisites :** Having a sound programming skill	

2. Subject Classification	
m-commerce, e-auctions, combinatorial reverse auctions, Business to Customer (B2C), optimization.	

2. Title of Project	
A Combinatorial Reverse Auction M-commerce System	

3. Description of the Project [1]	
Widespread use of mobile devices makes them good candidates for timely, fast, responsive and accessible means of e-trading and commerce. In this project, an auction software system for mobile commerce (m-commerce) purpose will be designed and implemented. A buyer having a mobile device & shopping in a mall environment is expected to be able to prepare a "wish-to-buy" list during his/her window shopping and then will be able start an instant combinatorial reverse auction in order to obtain the items in his/her list by paying the minimum total price. Following the auction announcement to sellers, the system will collect bids for all (or some) of the item(s) from sellers and will decide about the winner bid(s) by finding the minimum total price bid combination on behalf of its buyer. The winning bid(s) information will not only passed to winners but to the buyer in order to finalize the trading. Also, the friends of the buyer on social media will be informed about the auction result for seller advertisement and marketing purpose.	

4. Scope of the Project	
The project is limited to mobile devices. System usage is limited to shopping mall environment at which the same brand & model products are assumed to be sold by more than one seller.	

5. Goals of the Project :	
• To support cheap and fast buying for consumers • To provide discounted fast selling of many items ability for sellers • To enable the organization of consumer-centric automated instant campaign by sellers • To provide a cheap channel of advertisement/marketing for sellers	

4. Key techniques	
Linear Programming, Winner Determination Algorithm, Mobile Programming and Web Service Technologies.	

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[1] If necessary please use a separate sheet

5. Project outcome	
A Combinatorial Reverse Auction M-commerce Software	
6. Hardware/Software/Lab/ Equipment Requirements	IBM ILOG Optimization Package, Mobile Phone, Typical (or Cloud) Development Environment.