ACRP Design Competition: Management & Planning

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What is the ACRP Design Competition?
- The Airport Cooperative Research Program carries out research on problems that airport operating agencies face
- The Design Competition engages students in addressing issues relating to airports and creating innovative solutions
- The Management & Planning challenge focuses on airfield management and planning that will help optimize the use of existing airport resources and plan for upcoming functional needs

Current Problems
- Inefficient use of Airport Resources
- Airport employees accompany passengers through the entire airport. Results in demand inaccuracies
- Poor Customer Experience
- Delays cause increased anxiety
- Under-trained employees are common in the field of elderly care.
- Language barriers
- Inefficient Drop-Off Locations for Wheelchairs
- Airport Navigation dependent on employees

Features
- Wheelchair Sharing System
- Docking and charging stations with rental electric wheelchairs
- Sensors that connect to navigation software
- Navigation App and Tablet
- Tablet with directions to desired destination
- Guided navigation to airport amenities
- No contact payment system

Mission Statement
To create a system that improves accessibility, reduces fatigue, and increases independence for the aging passenger demographic traveling in airport terminals.

Projected Results
- Reduce Wheelchair Personnel by 50%
- Reduce employees in use per hour from 20 to 10
- Reduce Aging Passenger Fatigue by 75%
- 75% of the entire boarding process will be made easier through our system
- Reduce Time to Travel to Desired Destination by 35%
- Based on time saved from wheelchair queues
- Increase Airport Revenue