Auburn University
Samuel Ginn College of Engineering
Computer Science and Software Engineering Department

REU On Smart UAVs (Summer 2016)

Welcome to Auburn University!!!

Objective: The objective is to fly autonomously six to twelve UAVs within a limited space. A successful REU should ultimately conclude with ***publishable quality work*** that evaluates and reports your activities and results. The REU group will be divided in teams of two research assistants. By the end of this summer, each team is required to:

      1) Present a one-hour presentation (literature review) on a Friday's Seminar
      2) Write one high quality technical paper on their project
      3) Present their progress/achievements during the midterm and final presentations
      4) Set up a quality web page describing their projects/team
      5) Create a poster presentation of the project (as if for a conference presentation)

Work Hours:

    Monday through Friday from 8:30am to 5pm with a one-hour lunch break. Offices are in the grad village (Shelby Room 2319) on the second floor. Research assistants are welcome any time in the Lab (Shelby Room 2316)

Mentors-REU Assistants: All teams will be supervised by Dr. Chapman and Ms. Topuz

Teams	REU Assistants
I	
II	
III	
IV	

Each team will receive a randomly drawn number.

Introduction I (Monday May 23)

Time	Presenter(s)	Title
2:30-4:00pm	**Dr. Qi**	How to succeed in the AU REU program?
4:15-5:00pm	**REU Assistants**	What do you expect from this experience? What are **YOUR** objectives?

Introduction II (Tuesday May 24)

Time	Presenter	Title
8:30-9:50am	**Dr. Chapman**	Flight Basics / Unmanned Aircraft Systems
9:50-10:00am	************	Break
10:00- 11:30	**Dr. Chapman**	Presentation of Research Topics
1:30-2:30pm	**REU Assistants**	REU assistants organize themselves in teams
2:30-4:00pm	**REU Assistants**	Brainstorm about which tools and metrics to use to determine the winner

Monday Progress Meeting*: We will meet at 8:30am in the conference room every Monday*

Date	Chair	Agenda
May 23	Dr. Biaz	Welcome Meeting
Tuesday May 31*	Dr. Chapman	Round table: progress report, obstacles, objectives for the week
June 6	Dr. Chapman	Round table: progress report, obstacles, objectives for the week
June 13	Dr. Chapman	Round table: progress report, obstacles, objectives for the week
June 20	Dr. Chapman	Round table: progress report, obstacles, objectives for the week
June 27	Dr. Chapman	Round table: progress report, obstacles, objectives for the week
Tuesday July 5*	Dr. Chapman	Round table: progress report, obstacles, objectives for the week
July 11	Dr. Chapman	Round table: progress report, obstacles, objectives for the week

Friday Seminar : a seminar will be organized each Friday starting the 1st week until the 7th week. The first Friday seminar will be presented by Neda Topuz. Starting Week II, each seminar will be animated by a team who will present a literature review related to their project. All participants are required to attend all Friday Seminars and any other talks that are scheduled by the program Director. Announcement for talks other than Fridays' Seminars will be made at least 24 hours in advance. The Seminar on the 7th week will be dedicated to a wrap-up by each team: each team must present for about 15 minutes all tasks to complete by the end of the program. **Students are required to send an abstract and title of their talks with a short bio one week in advance**.

Friday Seminar	Chair	Speakers	Bio, Title, Abstract Due
May 27, 11:00am	Dr. Chapman	Neda Topuz	
June 3, 11:00am	Dr. Chapman	Team I	A week earlier
June 10, 11:00am	Dr. Chapman	Team II	A week earlier
June 17, 11:00am	Dr. Chapman	Team III	A week earlier
June 24, 11:00am	Dr. Chapman	*Midterm Presentations*	**Midterm deliverables due June 21*
July 1, 8:30am	Dr. Chapman	Team IV	A week earlier
July 8, 11:00am	Dr. Chapman	**Wrap-Up (All Teams)**	A week earlier
July 15, 11:00am	Dr. Biaz	**Final Presentations**	*July 23*

*Midterm deliverables are presentation, midterm paper, and website.

Project Paper: This technical paper must summarize your experience and findings. It will contain a description of the context of your research (1) (general introduction), (2) a description of the problem or task that you were assigned, (3) a literature review of the approach(es) adopted by other researchers, (4) your own approach, findings, and contribution.

Midterm Paper: will consist of (1), (2), and (3) of the final project paper (*see above*). It must be **submitted** at the middle of the 5th week and will constitute the mid-term paper. (About 10 pages, 12 point-Times single-spaced)

Project Presentations: The presentations consist of about 20 to 30 slides to present clearly your contribution and results. This presentation will be made at the **midterm**, and at the end.

Web page: The web page must contain links to all papers assigned, links to research groups working on closely related topics, a link to your report, a link to your presentation, code you developed....

Poster presentation: This will be a clear, substantive poster presentation. It should be readily accessible for a wide technical audience. Due on **Monday of Week 8**.

Midterm Presentation Schedule: (June 24)

Time	Teams # randomly selected
8:30	Team I
9:15	Team II
10:00	Break
10:15	Team III
11:00	Team IV

Final Presentation Schedule: (July 15)

Time	Teams # randomly selected
8:30	Team IV
9:15	Team III
10:00	Break
10:15	Team II
11:00	Team I

Contact Persons:

1) Dr. Biaz Tel: (334) 844 6307 biazsaa@auburn.edu
   Dr. Chapman cell : (334) 444 2138 chapmro@auburn.edu
2) Neda Topuz (334) 524 4266 fnt0003@tigermail.auburn.edu
3) **Travel Reimbursement**
   Kecia Hill (334) 844 6300 ksh0026@auburn.edu

Schedule for Main Events:

1) Monday May 23 : Welcome meeting (daytime), Faculty-Staff Meeting
   Introduction I
2) Tuesday May 24 : Introduction II – Projects presentation, Teams formation
3) Friday   May 27 : First seminar,
4) Monday May 30 : Holiday (**Memorial Day)**
5) Tuesday May 31 : First "*Monday*" meeting,
6) Each Monday (week 2 to week 8: Monday Status Meeting
7) Each Friday (week 2 to week 7): Friday Seminar
8) Tuesday June 21: **Due**: Midterm Paper, presentation, Web site (**8:30am**)
9) June 24: Mid term presentations
10) July 4, (Independence Day **Holiday**)
11) July 14, Due: Web site, Poster, and Paper (**8:30am**)
12) July 15: Final Presentations and Faculty-Staff Evaluation Meeting

Shelby 3129 – Seminar Room   **Shelby 3107** – Conference Room

Date	Day	Time	Location	Activity
05/23	Monday	8:30am	3107	Breakfast/Welcome meeting
		9:30am	3107	Administrative/Intro Survey
				Campus Tour/Administrative – Neda Topuz
		12:15 noon	Ariccia	Lunch
		2:30pm	3129	How to succeed in the AU REU program? Shubbhi Taneja
		4:15pm	3129	What do you expect from this experience? What are **YOUR** objectives?
05/24	Tuesday	8:30 -11:30	3129	Seminar (Introduction II) Dr. Chapman
		1:30pm – 4:30pm	Shelby 3129	Seminar (Introduction II) REU Assistants **Teams Composition Due**
05/27	Friday	8:30am	3129	Seminar by Neda Topuz
05/25-07/15	Monday-Friday	8:30-5:00pm		Research – Grad Village
06/21	Tuesday	8:30am	Shelby 3129	**Due: - Mid-semester paper (8:30am) - Web Site (8:30am) - Mid-term presentation slides (8:30 am)**
06/24	Friday	8:00-Noon	3129	Midterm Presentations
07/04	Monday			**Independence Day Holiday**
07/13	Wednesday	8:30am		**Due: - Final papers (8:30am) - Web Sites (8:30am) - Mid-term presentation slides (8:30 am)**
07/15	Friday	8:30am	Shelby 3129	**Final Paper/Presentations**
07/15	Friday	Noon	Shelby 3129	**Farewell Luncheon**

Research Assistants

1) Amaury Rodriguez   (787) 407 6347   amaury.rodriguez2@upr.edu
2) Andrew Morgan   (330) 442 7556   asmorgan@student.ysu.edu
3) Connor Malin   (214) 683 1835   m.ccwm@ymail.com
4) Hani Pisheh   (858) 666 5277   spisheh@berkeley.edu
5) Jennifer Salas   (562) 391 5056   Salasjennifer@icloud.com
6) Patrick Perez   (580) 512 1870   pp920501@cameron.edu
7) William Mcknight   (864) 616 2922   willmmcknight@gmail.com
8) Zachary Jones   (606) 571 7846   jones867@marshall.edu