EEE 598 WAMS-Based Applications in Power Systems  
Spring 2023  
SLN: EEE 598 31955  

Prerequisites: Open to electrical engineering graduate students  

Instructor: Professor Anamitra Pal, ERC 573, 480-965-2882 (O)  
Email: Anamitra.Pal@asu.edu  
Office Hours: 3 PM to 4 PM on Mondays and Wednesdays  
Other hours by (email) appointment  

Course Objective: Investigate role of advanced instrumentation in monitoring, protection, and control of power systems. Analyze effects of instrument transformers, signal conditioning circuits, A/D and DSP chips, time synchronization and sampling, output circuits and devices, and communication channels. Implement state-of-the-art algorithms by computer software.  

Grading Policy: Incorrect Work & Correct Answer - NO CREDIT  
No Work & Correct Answer - NO CREDIT  

Grading:  
Homework 40%  
(No late homework accepted)  
Two Projects (-3%/day late) 50%  
Project #1 20%  
Project #2 30%  
Class Participation 10%  
TOTAL===>100%  

Homework is expected to be turned in at the beginning of class on the assigned day. Students may work together on homework, but copying is unacceptable. (See Academic Integrity Policy on the following page). Solutions should be neat and logical. Presentations and methods for arriving at the answer are just as important as the answer. Reference all tables or graphs used to obtain required data. For complete credit show all work, box the answer, and show units. Homework solutions will be available on blackboard after the due date so no late homework will be accepted.  

Class Location: Tempe - SCOB101  
Class Timings: 4:30 PM to 5:45 PM on Mondays and Wednesdays  


Teaching Methodology: Lecture notes will be posted in Canvas. Scribes will be assigned at the start of the class to capture the discussions that will occur. Projects will be assigned either individually or in groups (depending on class size). Students are also encouraged to explore topics of their personal interest (as a project) as long as (i) the topics are relevant to the course, and (ii) the student/s have prior permission from the instructor.
**Classroom Behavior:** Cell phones and pagers (must be/or state alternative rule) turned off during class to avoid causing distractions. The use of recording devices is not permitted during class. Any violent or threatening conduct by an ASU student in this class will be reported to the ASU Police Department and the Office of the Dean of Students.

**Students Participating In University Sanctioned Activities**
1. Identify yourself prior to missing class.
2. Provide me with a copy of your travel schedule.
3. Missed work will be made up by agreement made with me prior to leaving for the activity.

**Academic Integrity:** All students in this class are subject to ASU’s Academic Integrity Policy (available at [http://provost.asu.edu/academicintegrity](http://provost.asu.edu/academicintegrity)) and should acquaint themselves with its content and requirements, including a strict prohibition against plagiarism. All violations will be reported to the Dean’s office, who maintain records of all offenses. Students are expected to abide by the FSE Honor Code ([http://engineering.asu.edu/integrity/](http://engineering.asu.edu/integrity/)). Please see the next page for student obligations.

**Disability Accommodations:** Suitable accommodations will be made for students having disabilities and students should notify the instructor as early as possible if they will require same. Such students must be registered with the Disability Resource Center and provide documentation to that effect.

**Sexual Discrimination:** Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at [https://sexualviolenceprevention.asu.edu/faqs](https://sexualviolenceprevention.asu.edu/faqs).

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, [https://eoss.asu.edu/counseling](https://eoss.asu.edu/counseling), is available if you wish to discuss any concerns confidentially and privately.

**Notice:** Any information in this syllabus (other than grading and absence policies) may be subject to change with reasonable advance notice.

**Notice:** All contents of these lectures, including written materials distributed to the class, are under copyright protection. Notes based on these materials may not be sold or commercialized without the express permission of the instructor.
Academic Integrity Continued …
All work in the homework assignments and projects should be done independently. Please be aware of
the university policies on academic integrity. The Provost’s web site
http://provost.asu.edu/academicintegrity lists the following student obligations:

Student Obligations
Each student must act with honesty and integrity, and must respect the rights of others in carrying out all academic
assignments. A student may be found to have engaged in academic dishonesty if, in connection with any Academic Evaluation
or academic or research assignment (including a paid research position), he or she:

A. Engages in any form of academic deceit;

B. Refers to materials or sources or uses devices (e.g., computer disks, audio recorders, camera phones, text messages, crib
sheets, calculators, solution manuals, materials from previous classes, or commercial research services) not authorized by the
instructor for use during the Academic Evaluation or assignment;

C. Possesses, reviews, buys, sells, obtains, or uses, without appropriate authorization, any materials intended to be used for
an Academic Evaluation or assignment in advance of its administration;

D. Acts as a substitute for another person in any Academic Evaluation or assignment;

E. Uses a substitute in any Academic Evaluation or assignment;

F. Depends on the aid of others, including other students or tutors, in connection with any Academic Evaluation or assignment
to the extent that the work is not representative of the student’s abilities;

G. Provides inappropriate aid to another person in connection with any Academic Evaluation or assignment, including the
unauthorized use of camera phones, text messages, photocopies, notes or other means to copy or photograph materials used
or intended for Academic Evaluation;

H. Engages in Plagiarism;

I. Uses materials from the Internet or any other source without full and appropriate attribution;

J. Permits his or her work to be submitted by another person in connection with any Academic Evaluation or assignment,
without authorization;

K. Claims credit for or submits work done by another;

L. Signs an attendance sheet for another student, allows another student to sign on the student’s behalf, or otherwise
participates in gaining credit for attendance for oneself or another without actually attending;

M. Falsifying or misrepresenting hours or activities in relationship to an internship, externship, field experience, clinical activity
or similar activity; or

N. Attempts to influence or change any Academic Evaluation, assignment or academic record for reasons having no relevance
to academic achievement.

I will strictly adhere to this policy. If I find any incidence of academic dishonesty
please be assured that I will pursue the issue to the fullest possible extent with the
appropriate university authorities.