**Mentor:** Dr. Ram Sundaram, Professor, ECE Department, Gannon University, Erie, PA

**Mentee:** Dr. Shayan Taheri, Assistant Professor, ECE Department, Gannon University, Erie, PA

**Categories discussed:**

**1. Teaching/Instruction**

- Offer new courses for the ECE Department related to Hardware Security, Security Aspects of Artificial Intelligence, Computer Architecture, VLSI Systems, and VHDL/Verilog HDL.

- Develop/prepare materials for the new courses as well as the existing ones, considering the important of teaching theories, concepts, and methods to the students.

- Update and revise the syllabus and the materials of the existing courses.

- Offer “ECE 217: Data Structure and Algorithm”, “ECE 245: Microcontroller Applications with Internet of Things (IoT)”, and “CYENG 312: Trusted Operating System (OS)” in the Fall 2022 semester.

- Offer “ECE 111: Introduction to C/C++ Programming”, “CYENG 225: Microcontroller Essentials for Cyber Applications”, and “CYENG 351: Embedded Secure Networking” in the Spring 2023 semester.

- Apply plagiarism checking on submitted materials for theoretical and laboratory assignments as well as projects.

**2. Advising**

- Study the University Resources materials available in “MY.GANNON”: Institutional Policy Manual (IPM) Volumes.

- Fill out and complete any relevant material as soon as possible.

- Provide Zoom sessions for certain students who are not available during the office hours and the email/Blackboard system communications are not sufficient for them.

- The syllabuses of courses and the Fall 2022 teaching schedule document were completed and sent to the ECE Department secretary.

**3. Research/Scholarship (Discovery, Teaching, Application, Integration, Engagement)**

- Write research proposals/grants and articles for achieving external and internal fundings.

- Write a research proposal for the faculty development grant (i.e., Deadline: Sept/23/2022). Attendance is acceptable too.

- Attend conferences, seminars, and webinars related to the research areas (Overlapping with Professional Development).

- Provide software and hardware resources for research activities, such as software tools from the Synopsys and Cadence companies as well as educational boards from the Xilinx and ARM companies (Overlapping with Professional Development).

- Hire graduate and undergraduate research assistants for research activities (Overlapping with Professional Development).

- Advise students for their Plan A/B/C master’s programs as well as senior design projects.

- Study all the guidelines related to the Plan A/B/C master’s programs as well as senior design projects.

- Work on a research proposal for [National Science Foundation (NSF) Secure and Trustworthy Cyberspace (SaTC) – Education](https://www.nsf.gov/pubs/2022/nsf22517/nsf22517.htm).

**4. Professional Development**

- Find research collaborators from [the list of research universities](https://en.wikipedia.org/wiki/List_of_research_universities_in_the_United_States), considering both “R1: Doctoral Universities – Very high research activity” and “R2: Doctoral Universities – High research activity” to help the personal, professional, and development growths.

- Find research collaborators from the top universities of other countries, including Canada, Australia, New Zealand, United Kingdom, Germany, France, Italy, Spain, India, Japan, and South Korea.

- Identify the possible resources (e.g., remote access to software tools) from the external collaborators.

- Communicate with federal agencies and commercial companies for making research collaborations.

- Conducting professional and resource developments through financial aids from the National Science Foundation programs, such as [National Science Foundation (NSF) Faculty Early Career Development Program (CAREER)](https://beta.nsf.gov/funding/opportunities/faculty-early-career-development-program-career) and [NSF Computer and Information Science and Engineering Research Initiation Initiative (CRII)](https://beta.nsf.gov/funding/opportunities/computer-and-information-science-and-engineering-research-initiation).

- Attend conferences, seminars, and webinars related to the research areas (Overlapping with Research/Scholarship).

- Provide software and hardware resources for research activities, such as software tools from the Synopsys and Cadence companies as well as educational boards from the Xilinx and ARM companies (Overlapping with Research/Scholarship).

- Hire graduate and undergraduate research assistants for research activities (Overlapping with Research/Scholarship).

- Meet with an external collaboration, Professor Asadi – University of Florida – Florida Institute for Cybersecurity Research (FICS Research), to discuss possible research opportunities.

**5. Service (University, Department, Community)**

- Provide seminars for the Gannon University as well as any other interested university.

- Being a member of IEEE – Erie PA Section.

- Being the IEEE advisor of the GU – ECE Department.

- Being a member of university, college, and department committees.

- Create special issues for different journals from the Institute of Electrical and Electronics Engineers (IEEE), the Association for Computing Machinery (ACM), the Holtzbrinck Publishing Group, the Springer “Science+Business” Media, the Elsevier, the Multidisciplinary Digital Publishing Institute (MDPI), etc. Working on an issue for each of the MDPI Designs and MDPI Mathematics journals.

- Provide executive contributions into the IEEE Physical Assurance and Inspection of Electronics (PAINE) international conference.