

SOWMYA GAVINOLLA

Instructor of Engineering Technology
College of Engineering & Computer Science
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Education

M.S. Applied Digital Technology

Arkansas State University, Jonesboro, AR

Jan 2024 – Aug 2025

GPA: 4.0/4.0

B.Tech Electronics and Communication Engineering

Teegala Krishna Reddy Engineering College

July 2019 – July 2023

Academic Appointments

Instructor, Engineering Technology Program

Arkansas State University, Jonesboro, AR

Aug 2025 – Present

- Teach AI for manufacturing, Robotics & Automation, Industrial IoT (IIoT), and Organizational Behavior for Heavy Industry.
- Develop hands-on labs using industrial robots, Cobots, sensors and IIoT platforms.
- Mentor students in technical skills, leadership readiness, and professional development.
- Support CREST outreach and recruitment efforts with regional schools and industry partners.

Mentor, A-State Center for Leadership Excellence

Sept 2025 – Present

- Guide undergraduate students in leadership, communication, and workplace readiness.
- Assist with workshops and experiential learning activities.

Graduate Assistant, Neil Griffin College of Business

July 2024 – Aug 2025

- Assisted faculty with grading, course coordination, and administrative tasks.

Intern, Women's Business Leadership Center

July 2024 – July 2025

- Coordinated leadership events and workshops.
- Supported marketing, community engagement, and mentorship programs.

Curricula Development

Developed/taught following cross-disciplinary courses:

- Industrial Internet of Things (IIoT)
- Industrial Automation and Robotics
- AI for Manufacturing
- Organizational Behavior for Heavy Industry

Research Projects

Residential Energy Metering, Billing, and Protection (Sept. 2022 - Oct. 2022)

- Developed and implemented an innovative system utilizing IoT and RFID technology to monitor and manage emergency vehicle traffic, significantly improving response times and overall traffic efficiency

Navigating Ethics in AI, Truth-telling and Workplace Dilemmas (June 2024 – May 2025)

- Conducted an in-depth research study examining moral judgment, ethical decision-making, and truth-telling behaviors in AI-driven workplace scenarios
- Presented findings at Create@State: A Symposium of Research, Scholarship & Creativity, among 170+ interdisciplinary poster presentations
- Explored real-world implications of ethical AI, focusing on responsible technology use, transparency, and human–AI interaction

Publications

Traffic Congestion, Control, and Management System

Journal of Information and Computational Science, Vol. 13 Issue 4, April 2023

- Developed an innovative system leveraging IoT and RFID technology to monitor and manage traffic congestion, enhancing emergency vehicle response times and overall traffic flow efficiency

M.V.V.Satya Chowdary, K.Keerthi, Y.Tejaswi, D.Sahithi, **G.Sowmya**,

[DOI:10.12733/JICS.2023.V13I4.535569.77713](https://doi.org/10.12733/JICS.2023.V13I4.535569.77713) 

Professional Activities

Scholarship Reviewer for Engineering Technology

Arkansas State University

Feb 2026 – Present

Professional Conferences & Events

- Judge, Create@State
- EAST Conference
- Arkansas Manufacturing Showcase Summit
- A-State Leadership Excellence Retreat
- Amazon–A-State Leadership Collaboration
- Women’s Leadership Conference
- ACWHE Annual Conference
- Catalyst NEA Leadership Forum

Professional Organizations

Faculty Advisor, Society of Manufacturing Engineers Student chapter (S405), 2025 – Current