Centres of Excellence – Faculty of Engineering and Technology for Women (FETW) @ Sharnbasva University

The Faculty of Engineering and Technology for Women (FETW) at Sharnbasva University is committed to delivering quality technical education that is aligned with national and global standards. To enhance academic rigor, industry readiness, and innovation, the institution has established multiple **Centres of Excellence (CoEs)** in collaboration with reputed industry partners and government initiatives.

Objectives of the Centres of Excellence:

- To provide experiential learning through hands-on training in advanced technologies.
- To bridge the gap between academia and industry requirements.
- To promote interdisciplinary research and innovation.
- To support skill development, certification, and entrepreneurial activities among students.

List of Operational Centres of Excellence:

1. **Intel® Unnati Data-Centric Labs in Emerging Technologies**
    - Focus Areas: Artificial Intelligence, Machine Learning, Internet of Things, Data Analytics
    - Facilities: Intel-supported hardware platforms, software toolkits, curriculum-aligned content
    - Outcome: Industry-relevant student projects, enhanced skill sets, and certification opportunities

Intel Unnati lab (Center of Excellence in AI and ML and IoT) inauguration by Poojya Dr. Avvaji and officers of the University

2. **IBM Innovation Center for Education**
    - Focus Areas: Cloud Computing, Cybersecurity, Software Development, Business Intelligence
    - Facilities: Licensed IBM software tools, digital learning modules, project-based learning
    - Outcome: Global certifications, industry collaboration, employability enhancement
3. **Cloud Computing Laboratory**
    - Focus Areas: Cloud Architecture, Virtualization, DevOps
    - Tools/Platforms: AWS, Microsoft Azure, Google Cloud simulators
    - Outcome: Real-time application development, deployment projects, skill-based training
4. **Drone Technology Laboratory**
    - Focus Areas: UAV Design, Flight Control, Aerial Data Processing
    - Equipment: Drone kits, simulators, wireless communication modules
    - Outcome: Student-led drone projects in agriculture, surveillance, and automation
5. **5G Technology Laboratory**
    - Focus Areas: Wireless Networks, Next-Gen Communication, IoT Integration

- Facilities: Signal processing toolkits, simulation software, prototype environments
- Outcome: Research publications, prototype models, domain-specific learning

6. **Medini Eduphygital Laboratory**
    - Focus Areas: Hybrid Learning Environments, Immersive Education, Interdisciplinary Collaboration
    - Features: Physical-digital integration platforms supporting cross-functional projects
    - Outcome: Enhanced learner engagement, multi-domain collaboration, innovative pedagogy

Impact Summary:

- Over 200+ students trained annually through CoEs and certified in industry-relevant domains.
- Multiple interdisciplinary projects completed and presented at national and international forums.
- Active MoUs with technology leaders such as Intel, IBM, and cloud service providers.
- Ongoing support for student startups under K-Tech and MSME incubation schemes.

The Centres of Excellence at FETW serve as a cornerstone in the institution's vision to promote **academic excellence**, **technological innovation**, and **women empowerment in engineering education**.