



Proposal for a Collaborative MS Degree between Florida International University (FIU)

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&

PES University (PESU)

<https://pes.edu/>

Master's of Science in Applied AI and Cybersecurity

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Executive Summary

This proposal outlines a **Collaborative Master of Science (MS) Program in Applied AI and Cybersecurity** between **Florida International University (FIU)** and **PES University (PESU)**. The initiative aims to provide students with a dual-campus learning experience, allowing them to begin their coursework at PESU and complete their degree at FIU, earning a globally recognized **STEM-designated MS degree**.

The program structure consists of **30 credits**, with students completing **20% of their coursework at PESU** before transitioning to FIU. The curriculum is designed to provide **advanced knowledge and practical expertise** in key areas such as **Cybersecurity, Digital Forensics, Artificial Intelligence, Machine Learning, and Data Analytics**. The admission criteria ensure inclusivity by waiving standardized test requirements for PESU students.

Key benefits of this collaboration include:

- Establishing a **pipeline of highly qualified students** from PESU to FIU.
- **Faculty exchange and research collaboration** opportunities between both institutions.
- A **flexible timeline**, allowing students to extend their studies with a summer internship.

The program aims to **foster global engagement, research excellence, and industry-ready skills**. The proposal welcomes feedback from FIU to refine its structure, with further discussions planned during the PESU delegation's visit to FIU from **May 5–7, 2025**, during the **US Army Funded FINDS Conference**.

Table of Contents

1. **Introduction**
 - Overview of FIU-PESU Partnership
 - Memorandum of Understanding (MoU)
2. **Proposed Collaborative MS Program in Applied AI and Cybersecurity**
 - Program Overview
 - Key Benefits
3. **Program Structure**
 - Degree Awarding Institution
 - Dual-Campus Learning Model
 - Credit Distribution
4. **Credit Transfer and Degree Award**
 - Course Requirements
 - Academic Timeline
5. **Admission Criteria**
 - Minimum Educational Qualifications
 - GPA Requirements
 - Waiver of Standardized Tests
6. **Program Objectives**
 - Academic Excellence
 - Cultural and Global Exposure
 - Research and Innovation
7. **Implementation Plan**
 - Curriculum Development
 - Faculty Collaboration
 - Student Support Services
8. **Detailed Course Structure**
 - **Core Courses (9 credits)**
 - **Focus Area Courses (9 credits)**
 - **Elective Courses (12 credits)**
9. **Conclusion and Next Steps**
 - Refinement of Proposal
 - Timeline for Institutional Approvals
 - Discussion during PESU Visit to FIU

This document provides a comprehensive roadmap for the **FIU-PESU MS Collaboration**, ensuring seamless academic integration and a world-class educational experience.

FIU-PESU Academic Collaboration Established on June 16, 2024

PES University (PESU), Bengaluru, India, and Florida International University (FIU), Miami, USA, signed a Memorandum of Understanding (MoU) on June 16, 2024, in Bangalore. This agreement fosters collaboration and partnership between the two institutions. It aims to enhance academic and research initiatives through joint efforts. The MoU strengthens global engagement and innovation in education.

Proposed Collaborative MS Program in Applied AI and Cybersecurity between PESU and FIU

PES University (PESU), Bengaluru, India, and Florida International University (FIU), Miami, USA, are proposing a collaborative **Master of Science (MS) in Applied AI and Cybersecurity**. This joint initiative will allow students to begin their studies at PESU and complete their degree at FIU, earning a globally recognized STEM credential from a leading U.S. university.

Program Overview

- **Degree Awarding Institution:** FIU (STEM-designated MS in Applied AI and Cybersecurity).
- **Dual-Campus Learning Model:** Students complete 20% of coursework at PESU before transitioning to FIU.
- **Projected Launch:** Academic Year 2026, allowing time for institutional approvals.
- **Credit Structure:** 10 courses (3 credits each), totaling 30 credits.
- **Course Distribution:**
 - **PESU Phase (June–July 2026):** Two courses (6 credits) taught by PESU faculty, transferable to FIU.
 - **FIU Phase (Fall 2026 – Spring 2027):**
 - 3–4 courses in Fall 2026 (Aug–Dec).
 - 3–4 courses in Spring 2027 (Jan–May).
 - Option to complete the program by May 2027 or extend to Fall 2027 with a summer internship.

Key Benefits

- **Steady Pipeline of Qualified Students:** PESU graduates over 1,600 students in Computer Science annually, with over 500 pursuing higher education within 2–3 years.
- **Faculty Exchange Opportunities:** Professors from both universities may have the chance to teach at the partner institution.
- **Flexible Completion Timeline:** Students can opt for a summer internship to extend their studies.

Further details, including course structure and financial arrangements, will be refined upon mutual agreement.

Program Structure

The proposed MS program will adhere to a 30-credit structure, aligning with FIU's existing MS programs. The distribution of credits is as follows:

- **Total Credits:** 30
- **Core Courses:** 9 credits (3 courses)
- **Elective Courses:** 21 credits (7 courses)

Course Distribution

- **At PESU (First Semester):** Students will complete 6 credits (2 courses), which can be a combination of core and elective courses.
- **At FIU (Subsequent Semesters):** Students will complete the remaining 24 credits (8 courses), selecting from FIU's offerings.

Credit Transfer and Degree Award

Students will begin their MS journey at PESU, where they will complete 20% of their coursework. Upon successful completion, a seamless credit transfer process will be facilitated, ensuring that students retain their earned credits when transitioning to FIU. They will then complete the remaining 80% of the program at FIU, benefiting from its advanced research facilities and faculty expertise. Upon fulfilling all degree requirements, students will be awarded the MS degree by Florida International University.

Admission Criteria

To lower barriers for admission and promote inclusivity, the following criteria are proposed:

- **Educational Background:** Applicants must hold a Bachelor's degree in Computer Science, Computer Science Engineering (AI/ML), or another engineering discipline with a minor in Computer Science.
- **GPA Requirement:** A minimum GPA of 3.0 on a 4.0 scale is required (equivalent in at PESU id 6.75 /10).
- **Standardized Tests:** GRE, TOEFL/IELTS, or equivalent English proficiency tests and third party validation of PESU BS degree will be waived by FIU for admission to this program.

Program Objectives

- **Academic Excellence:** Provide students with advanced knowledge and skills in Information Science and Management.
- **Cultural Enrichment:** Offer a dual-campus experience to foster global perspectives and cultural understanding.
- **Research and Innovation:** Encourage collaborative research opportunities in emerging technologies such as Cyber Security, Digital Forensics, GenAI, AI, ML and Data Analytics.

Implementation Plan

- **Curriculum Development:** Jointly design the curriculum to ensure coherence and alignment with industry standards and ensure there is no overlap/redundancy.
- **Faculty Collaboration:** Facilitate faculty exchanges and joint research projects to enrich the academic environment.
- **Student Support:** Provide comprehensive support services, including academic advising, cultural orientation, and career counseling, application and Visa support.

Conclusion

This proposed MS program represents a strategic collaboration between PESU and FIU, designed to develop future leaders in **Applied AI and Cybersecurity**. By combining the expertise and resources of both institutions, the program aims to set a new standard for international academic partnerships, fostering innovation, research, and industry-ready skills.

As this is a preliminary proposal, we welcome FIU's feedback and look forward to refining the structure to align with its vision. We would be pleased to discuss the details further via email and in person during our visit to FIU from **May 5–7, 2025**, while attending the **US Army Funded FINDS Conference** hosted by **Dr. S.S. Iyengar and his team**.

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Master's of Science in Applied AI and Cybersecurity

Effective Fall 2026 term and prior (subject to change)

Required courses - 9 credits:

Students must obtain a grade of C or better in these courses.

A grade of C- is not acceptable. *Overall GPA must remain above a 3.0 in order to graduate.*

| Required courses | | | | |
|-----------------------------------------------------|-----------------|-------------------------|---------------|----------------------------|
| <i>Course # & name:</i> | <i>Credits:</i> | <i>Term & Year:</i> | <i>Grade:</i> | <i>Comments/Professor:</i> |
| P601: Neural Networks and Deep Learning with Python | 3 | Summer 2026 | | |
| P622: Principles of Cybersecurity | 3 | Summer 2026 | | |
| P635: Digital Transformation | 3 | Fall 2026 | | |

Focus Area - 9 credits:

| Required courses | | | | |
|--------------------------------------------------|-----------------|-------------------------|---------------|----------------------------|
| <i>Course # & name:</i> | <i>Credits:</i> | <i>Term & Year:</i> | <i>Grade:</i> | <i>Comments/Professor:</i> |
| CIS 5374: Information Security and Privacy (FIU) | 3 | Fall 2026 | | |
| P605: Gen AI for Cybersecurity | 3 | Fall 2026 | | |
| P616: Leveraging AI for Digital Forensics | 3 | Fall 2026 | | |
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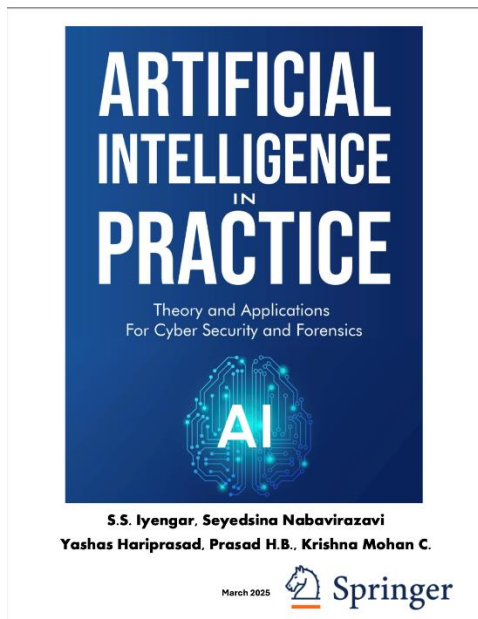
ELECTIVE COURSEWORK - 12 credits:

Electives can be chosen from either of the focus areas above or from the courses below.

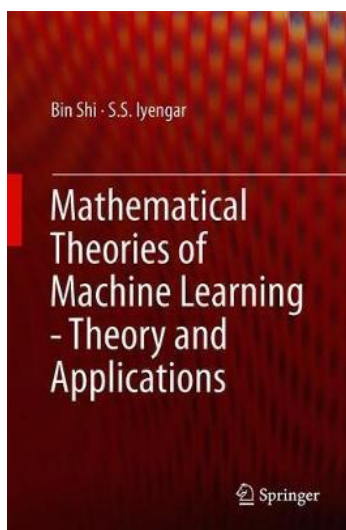
| Electives (Choose any 4) | | | |
|----------------------------------------------------------------|-----------------|-------------------------|---------------|
| <i>Course # & name:</i> | <i>Credits:</i> | <i>Term & Year:</i> | <i>Grade:</i> |
| P701: Cybersecurity Governance, Compliance, and Leadership | 3 | Spring 2026 | |
| P702: Secure Software Design and Threat Analysis | 3 | Spring 2026 | |
| P703: Ethical Hacking | 3 | Spring 2026 | |
| P704: Next-Gen Cryptography: Applied and Post-Quantum Security | 3 | Spring 2026 | |
| P708: Applied AI for Cybersecurity with Adversaries in Mind | 3 | Spring 2026 | |
| P714: Trustworthy and Ethical AI Engineering | 3 | Spring 2026 | |
| CAP 5738: Data Visualization (FIU) | 3 | Spring 2026 | |
| P721: Security with AI | 3 | Spring 2026 | |

References

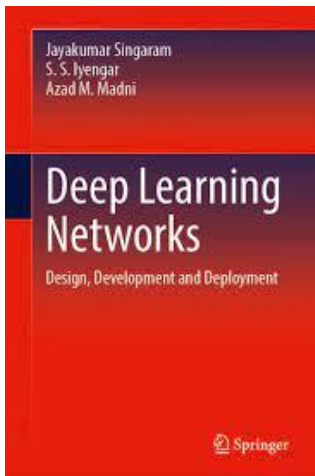
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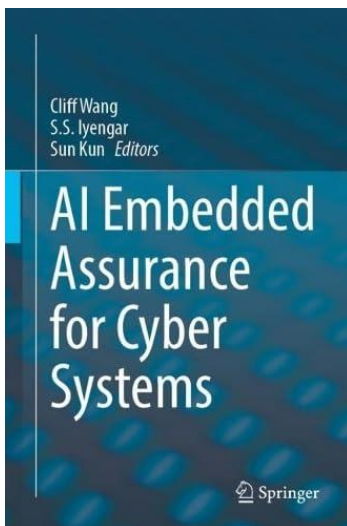
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