

ON-DUTY REPORT

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Reason: From Mechanics to AI: Navigating Multi-Field Shifts to Passion in Academia

I still remember walking back onto the Rajalakshmi Engineering College (REC) campus as a newly appointed Assistant Professor in the AI & DS department—a full-circle moment after graduating from here. It was during a quiet evening amid post-pandemic reflections that I realized my winding path from Mechanical Engineering to this role wasn't random; it was a series of deliberate pivots fueled by curiosity and resilience. Like many alumni, I faced the discomfort of change, but embracing it led me to my true passion in academia.

Steps to Comfortably Pivot Across Fields

Adapting to unfamiliar territories requires agreeing to challenges, seeking help, and owning the journey. Here are the expanded steps that propelled my shifts from B.E. Mechanical to MBA in HR, M.Tech in Data Science, and now teaching AI—now including how I transformed coding practice into a tool for growth.

Agree to the Challenge and Accept Knowledge Gaps: My mechanical background honed problem-solving, but HR demanded people skills, and Data Science required coding. I accepted I didn't know everything and dove in, starting with small HR projects that applied mech efficiency to team dynamics.

Leverage Transferable Skills with Quantifiable Impact: Mechanics taught me systems thinking, which optimized HR workflows (reducing onboarding time by 30%) and later powered AI models in my M.Tech. Tailor your resume to highlight these bridges, focusing on metrics like improved processes or data-driven decisions.

Practice Coding to Learn from Errors, Not Just Outputs: Early on, coding felt intimidating—I aimed for perfect runs. But I shifted to deliberate error exploration: syntax issues, shape mismatches, index errors became lessons in logic and debugging. This built deeper understanding than memorizing right answers, turning failures into confidence for AI projects.

Identify Stakeholders and Upskill Strategically: Network internally—my MBA mentors connected me to DS opportunities, much like cross-functional projects. Pursue certifications or hands-on work (e.g., machine learning on mechanical datasets) and explicitly seek faculty guidance at REC.

Take Ownership and Contribute Actively: In academia, I lead student AI projects blending mech simulations with DS, easing their burdens while building my expertise. Invest time understanding core problems, then lead solutions—this builds confidence and character.

Overall Status: APPROVED

Staff Approvals

1. Priya R (IT3103 - Operating Systems)

Status: APPROVED

Responded: 17/12/2025

2. Kapilamithran S (IT3101 - Data Structures)

Status: APPROVED

Responded: 17/12/2025

3. Kapilamithran S (IT3102 - DBMS)

Status: APPROVED

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