

University Session Agenda (2.5 hours) – IT Faculty Moratuwa

Date : 02nd October 2025

Time: 10.00am-2.00pm (including snack break)

Theme: *Skills That Will Shape Your Software Career in the future.*

0. Introduction & Icebreaker (10 mins)

- Quick poll: “Do you already use GitHub Copilot / ChatGPT in coding?”
 - Why software engineering is entering a **new era**.
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1. Software Engineering Generations (25 mins)

- **SE 1.0** → Waterfall, rigorous, documentation-heavy
- **SE 2.0** → Agile + DevOps, iterative, customer-driven, powered by the cloud
- **SE 3.0** → AI-Native, human–AI collaboration, shift to **Product Engineering**

Activity: Discuss in groups: *What do you think limits Agile in your projects today?*

Key takeaway: Every generation of software practices emerged from new technology to solve the limits of the previous one. The future is **Product Engineering** — building consolidated, end-to-end product skills.

2. AI in Today's Software Engineering (30 mins)

- **AI-Assisted** → Tools like Copilot, ChatGPT, Cursor, Lovable
- **AI-Augmented** → AI in CI/CD, refactoring, test generation (e.g., *Citrus*)
- **AI-First** → Embedding AI into Agile practices

Risks: hallucinations, lack of context, explainability

Opportunities: productivity, reduced cognitive load, faster learning loops

Demo: Build a feature in *Citrus*, then refine it.

Hands-on (1 hour): In groups, use *Citrus* to create a small app.

⌚ REFRESHMENT BREAK

4. Skills for the New Era (30 mins)

- **Role Evolution:**
 - Programmer → Software Engineer → **Product Engineer** (holistic builder)
- **Technical Skills:** prompt engineering, AI-assisted coding, data literacy, DevOps 2.0, cloud/ML basics
- **Collaboration Skills:** working with AI teammates, intent-driven communication, critical thinking, ethics
- **Mindset:** experimentation, continuous learning, trust but verify
- **Trends:** Thoughtworks “AI-First”, SE 3.0 vision

Reflection: *Which future skill excites you most? Which do you feel least prepared for?*

6. Wrap-Up & Q&A (10 mins)

- **Key Takeaways:**
 - History of SE → Agile → AI-Native
 - AI’s role in today’s engineering practices
 - Skills roadmap for the future
 - Platforms like *Citrus* matter
- **Aventude Internship:** What it looks like & how to apply
 - Test link (Raga’s) will be shared

Open floor for questions.

You will leave with:

- Awareness of how software engineering has evolved
- Practical understanding of AI’s role in modern development
- A skills roadmap for **future-ready engineers**
- Knowledge about the **Aventude Internship Program**