



THE UNIVERSITY OF  
**AUCKLAND**  
Te Whare Wānanga o Tamaki Makaurau  
NEW ZEALAND

# SOFTENG 306 SOFTWARE ENGINEERING DESIGN 2

## LECTURE

### 01 –PART II OVERVIEW

Dr. Seyed Reza Shahamiri [More Info](#)

# Teaching Team

- [Dr. Oliver Sinnen](#) – Course Coordinator – Part I Lecturer [o.sinnen@auckland.ac.nz](mailto:o.sinnen@auckland.ac.nz)
- [Dr. Reza Shahamiri](#) – Part II Lecturer – [reza.Shahamiri@auckland.ac.nz](mailto:reza.Shahamiri@auckland.ac.nz)
- Teaching Assistants
  - Harris Mumtaz [hmum126@aucklanduni.ac.nz](mailto:hmum126@aucklanduni.ac.nz)
  - Vilia Li [vli121@aucklanduni.ac.nz](mailto:vli121@aucklanduni.ac.nz)



# How to contact

- Piazza as first option
- Email (Subject: SE306)
- Meeting
  - Email in advance for a suitable time (outside regular lectures)



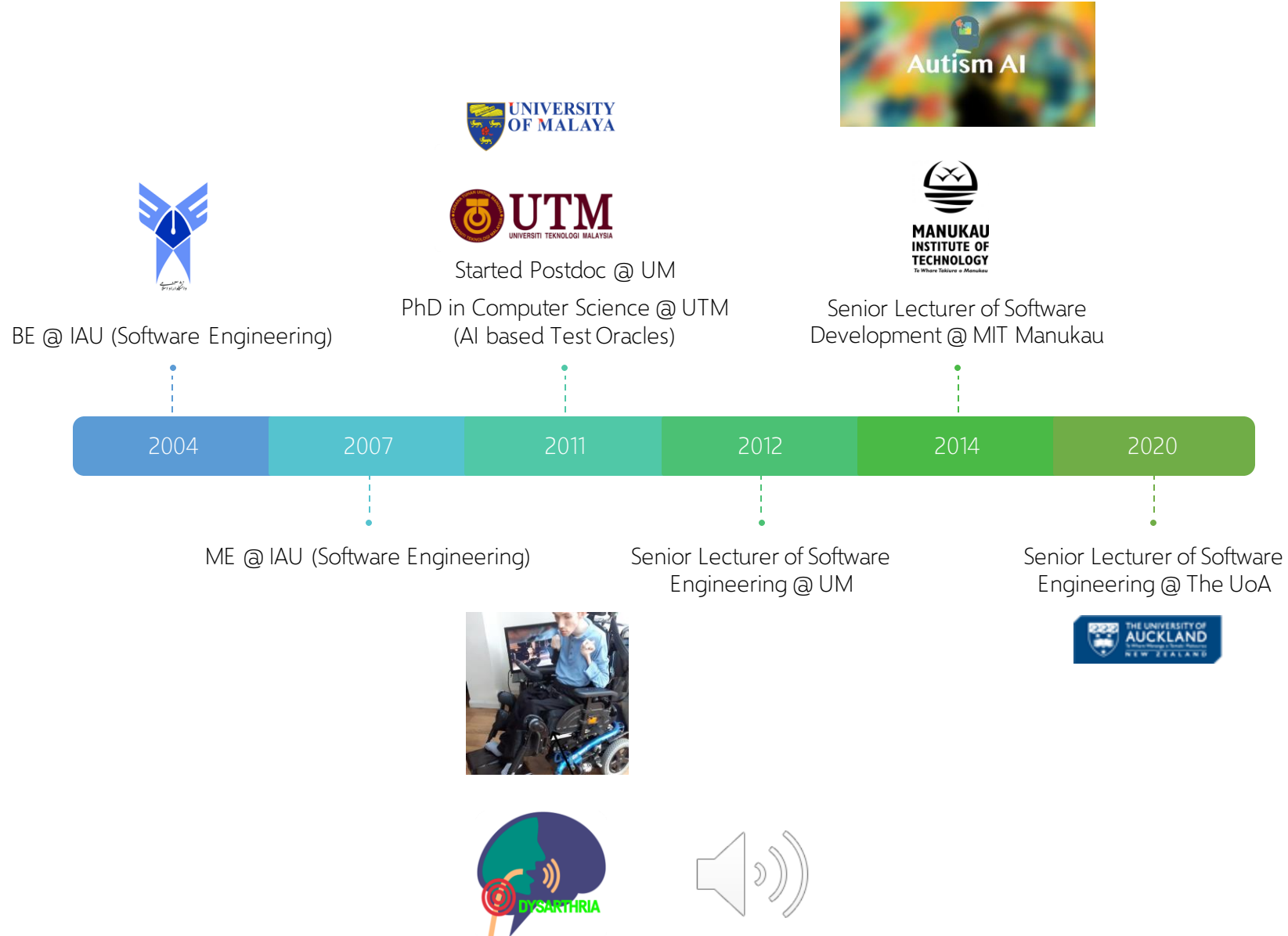
## Lectures (Part II)

- Approximately three weeks (weeks 7 to 9, i.e. 21<sup>st</sup> September to 11<sup>th</sup> October)
- Location (all lectures): Weeks 7 and 8 on Zoom, Week 9 Building 303 - Sci Maths & Physics, Room G01????
- Time:
  - Mondays 10am-12pm
  - Tuesdays 9am-10am





Reza Shahamiri



## Haris Mumtaz — Graduate Teaching Assistant

- Doctoral Candidate in the HASEL group of the University of Auckland.
- Conducting research to make good quality software products.
- Part-time graduate teaching assistant for SE courses.
- A happy dad!
- Contact: [hmum126@aucklanduni.ac.nz](mailto:hmum126@aucklanduni.ac.nz)

# Vilia – Teaching Assistant

- Final year Computer Systems Engineering and Commerce student
- Currently studying Finance and Economics at the Business School
- Sucks at playing imposter for Among Us



# Students

- Part 3
  - Software Engineering,
  - Computer Systems Engineering?
- Others?
- Software Design Experience?
- Any professional software developer?





## Part II Pre-Requisites

- Strong Java object-oriented programming, design, and modelling skills
- Basics of Software Design, architecture, principles, etc.
- Basics of software measurement metrics and software quality attributes
- Strong communication and team working skills



## Part II Objectives

- To design and implement high quality software by applying software engineering best practices and clean design principles.
- To distinguish between bad and good design and being able to refactor design.



## Part II Learning Outcomes

- Identify software design smells
- Critically analyze the effects of design smells on software quality
- Improve design by applying design principles and eliminating software bad smells
- Objectively measure software and describe software quality attributes
- Demonstrate the above in action



## Why Part II?

So that instead of designing this



You design this





