Course Title:	**Internet of Things and Applications**
Course Code:	**COMP728**
Descriptor Start Date:	**31/01/2023**
Descriptor End Date:	**30/01/2025**
POINTS:	**15.00**
LEVEL:	**7**
PREREQUISITE/S:	**None**
COREQUISITE/S:	**None**
RESTRICTION/S:	**None**

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 150

PRESCRIPTOR

Critical appraisal of the technical principles and wider issues concerning applications of the Internet of Things (IOT) now and in the future. Analysis of application areas and design principles for successful implementation and integration of IOT solutions.

LEARNING OUTCOMES

1. Analyse the key techniques and theory that form the foundation of IOT sensors and systems.
2. Critically explain the principles, advantages, limitations and possible applications of the Internet of Things.
3. Select and configure Internet of Things platforms and technologies.
4. Use a variety of tools/communication methods and sensing technologies to develop and test a prototype IoT system.
5. Critically evaluate commonly used IoT technologies and their application domains.

CONTENT

• Basic concepts: Introduction to IoT and service layers
• Sensors and actuators
• Wearable technologies
• IoT platforms for example : IBM Bluemix, Google cloud Platform, AWS IoT platform
• Rapid prototyping
• Seminars and projects
• Application areas including; City Planning, Farming and agriculture, Smart cities, driverless cars, drones and autonomous robots, Smart roads Environment - air and water quality, Education and Health

LEARNING & TEACHING STRATEGIES

• Lectures
• Student-led seminars
• Class discussion
• Guest speakers
• Laboratory work – this will be integrated with the lecture sessions

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Application area report	20.00	2,5
Research project Report (Pairs)	60.00	1 - 5
Research project presentation	20.00	1 - 5

Grade Map **MAP1**

A+ A A- Pass with Distinction
B+ B B- Pass with Merit
C+ C C- Pass
D Fail

Overall requirement/s to pass the course:

To pass the course, students must satisfy the stated learning outcomes and achieve a minimum overall grade of C-.

LEARNING RESOURCES

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For further information, contact: Te Ara Auaha - Faculty of Design & Creative Technologies

Principal Programme: **AK3697, Bachelor of Computer and Information Sciences**

Related Programme/s: