

ENGR 2028 NEW PRODUCT INNOVATION WITH IOT DATA

Credit Points 10

Legacy Code 301305

Coordinator Sasha Alexander ([https://directory.westernsydney.edu.au/search/name/Sasha Alexander/](https://directory.westernsydney.edu.au/search/name/Sasha%20Alexander/))

Description Design Thinking has had a considerable effect on the ways firms innovate, design and evaluate products and services for use. The evolution of smart products and services in recent years offers both challenges and rewards for organisations as the big data generated provides insights to current product and service utilisation. Interpretation and integration of these new knowledge streams can support future product development, by enhanced understanding of human behaviour and features of sensor technologies. Students will produce an IoT influenced project design brief that provides the directional basis for the deployment of both human and technological resources in preparation for their career progression as a future innovation manager in a global, online marketplace.

School Eng, Design & Built Env

Discipline Other Engineering And Related Technologies

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Equivalent Subjects ENGR 2003 - Design Management 1 Product Design Audit
ENGR 2002 - Design Management 1 Process and Manufacturing

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Apply design thinking methods to a context based challenge;
2. Evaluate a product or service from an Internet of Things requirements perspective;
3. Create a narrative by mapping essential considerations for either product or service use;
4. Develop a design innovation strategy incorporating compelling contextual factors framed in a design brief with actionable items that consider necessary resources to progress to a prototype planning stage.

Subject Content

- introduction to The internet of things (IoT) features as A strategic planning approach to new Product development (NPD) or redesign.
- planning Product to market resource utilisation Employing design thinking methods and IoT feature integration
- Leveraging innovation methodologies supporting Entrepreneurship through user-centred approaches
- Scaffolded design brief planning reflecting upon collaborative transdisciplinary practices
- enhancing Product and service development from An end-Consumer-centred Product innovation perspective

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/Group Task
Report and Annotated Bibliography: Identify and analyse contextual scenario in IoT Context Report with annotated bibliography	1,000 words (report, 20% with annotated bibliography, 10%)	30	N	Individual
Critical Review: IoT Resource Identification critical review with Mapping visualisation	1,000 words (critical review 20%) And Mapping visualisation(1	30	N	Individual
IoT Innovation Report with Design Brief & proposal	750 words (design brief 15%) and 1250 words (proposal report 25%)	40	N	Individual

Teaching Periods