



## KICT TEACHING & LEARNING EXHIBITION (TALE)

**HUMANISING ICT IN EDUCATION**  
25 SEPTEMBER 2024 | KICT MULTI-PURPOSE HALL

KULLIYAH OF INFORMATION & COMMUNICATION TECHNOLOGY  
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA (IIUM)



*Join us*

## INSIDE THIS ISSUE

- Editorial Board Members
- KICT TALE 2024 Event
- List of Newsletter Articles
- 36 Newsletter Articles from KICT TALE 2024

### *Editorial Board Members*

**ADVISOR:**



**DR. NOOR AZURA ZAKARIA**

**CHIEF EDITOR:**



**DR. HAFIZAH MANSOR**

**EDITOR:**



**DR. AZLIN NORDIN**



# TABLE OF CONTENT

NO.	TITLE	AUTHOR
1.	<u>Empowering Peer Assessment in Group Project Towards Effective Collaboration and Fair Evaluation</u>	Norsaremah Salleh
2.	<u>Engaging Students in The Reality of Computer Networking : Transmitting Data in IP Network</u>	Adamu Abubakar Ibrahim
3.	<u>Enhancing Learning in Data Structures and Algorithms with VisuAlgo</u>	Hamwira Yaacob
4.	<u>Extended Reality Education (XR-Ed)</u>	Aidrina Sofiadin
5.	<u>Effective Classroom Practices to Humanize ICT in Education</u>	Akram M Z M Khedher
6.	<u>Using Reward Mechanism to Encourage Learners' Motivation : An Exploration of Learning Management System Features</u>	Azlin Nordin
7.	<u>COMPUTATION AND COMPLEXITY CONSTRUCTION AND BRIDGING COMPUTATION WITH PHILOSOPHY</u>	Prof. Tengku Sembok
8.	<u>GitHub Codespaces: A Modern Platform for Effective Teaching and Learning</u>	Rizal Mohd Nor
9.	<u>Collaborative Coding in Assembly Language: Empowering Students to Build Community-Driven Applications</u>	Hafizah Mansor



# TABLE OF CONTENT

NO.	TITLE	AUTHOR
10.	<u>Crafting a Compelling Business Plan: A Technopreneur's Essential Tool</u>	Nurhafizah Mahri
11.	<u>The Impact of Early Research Engagement: Strategies for Success (The Establishment of IoTeams)</u>	Ahmad Anwar Zainuddin
12.	<u>From "code autocomplete" to "AI code generators": Programming tools and resources for a web development course</u>	Marini Othman
13.	<u>Cybersecurity education: Developing Malaysia's Cyber Resilience</u>	Nurul Nuha
14.	<u>Integrating KhAIR in Usability Evaluation to Measure Effectiveness of a Website</u>	Prof. Murni Mahmud
15.	<u>Collaborative Flipped Classroom: A Model for Computational Courses.</u>	Akeem Olowolayemo
16.	<u>Hackers in the Hallway: Humanising cybersecurity through role play.</u>	Andi Fitriah Abdul Kadir
17.	<u>Teaching The Chaos</u>	Siti Asma Mohammed
18.	<u>INFO 4326 - 3D Modelling</u>	Nurazlin Zainal Azmi
19.	<u>Engage, Share, Connect: Introducing Discord as a Learning Platform</u>	Nuradib Maspo



# TABLE OF CONTENT

NO.	TITLE	AUTHOR
20.	<u>Software Testing Tool: Blazemeter</u>	Normi Sham Awang Abu Bakar
21.	<u>Experiential Learning for INFO 4342 - Business Continuity and Disaster Recovery</u>	Shuhaili Talib
22.	<u>Object Oriented Programming</u>	Dini Handayani
23.	<u>DATANarratives: Crafting Insights: A Journey in Information Visualization Course</u>	Madihah Sheikh Abdul Aziz
24.	<u>A STEAM-Based Approach for the Introduction to Computer Organization Group Project</u>	Norlia Md Yusof
25.	<u>DATA PROFILING: HELPING TO TURN RAW DATA INTO BUSINESS INTELLIGENCE (BI)</u>	Lili Marziana Abdullah
26.	<u>Undergraduate Students can write &amp; publish paper</u>	Abdul Rahman Ahmad Dahlan
27.	<u>Exploring Escape Room for Learner Engagement</u>	Azlin Nordin
28.	<u>Algorithm Design &amp; Analysis: Nurturing Creator/Innovator Mentality vs User Mentality</u>	Nurul Liyana Mohamad Zulkuffi
29.	<u>ICS: Bridging the Arabic Cataloguing Gap Between Academic and Industry</u>	Nor Saadah Md Nor
30.	<u>Engage, Collaborate, Learn: Miro in the Classroom</u>	Nur Leyni Nilam Putri Junurham



# TABLE OF CONTENT

No.	TITLE	AUTHOR
31.	<u>Design Thinking - Applying design thinking in real world problems</u>	Elin Eliana Abdul Rahim
32.	<u>Enhancing Engagement with DataCamp Classrooms: Transforming Online Learning Experiences</u>	Amelia Ritahani Ismail
33.	<u>ExPIORe: A Guided Learning Activity using Text-based Generative Artificial Intelligence Platform</u>	Mira Kartiwi
34.	<u>Leveraging Student Creativity in Computer Organization Through Project Mini Showcase</u>	Noor Azura Zakaria & Ahsiah Ismail
35.	<u>Bridging Theory and Practice in System Analysis and Design</u>	Mimi Liza Abdul Majid
36.	<u>INNOVATIVE TEACHING METHODS AND STRATEGIES: Creative Design Technique</u>	Muna Azuddin



# TALE NEWSLETTER

## INFORMATION VISUALIZATION



### Rationales

01 Integrate theories with practice:  
industry tool  + a b l e a u

02 Be confident through  
guidance

03 Emphasize technical  
proficiency

04 Ethical, Responsible & Accurate  
data representation

05 Create visualizations that have  
societal and professional impact



**DR MADIHAH SHEIKH  
ABDUL AZIZ**

DEPT OF INFORMATION  
SYSTEMS

MADIHAHS@IIUM.EDU.MY

“In this course students are encouraged to explore, create, and iterate, with a strong focus on integrating UI/UX principles into data visualization and storytelling. By incorporating UI/UX concepts, students learn to design visualizations that are not only informative but also intuitive and engaging for the end user, ensuring clarity, functionality, and impact in their data-driven narratives”

## From Data to Insights: Crafting Visual Narratives

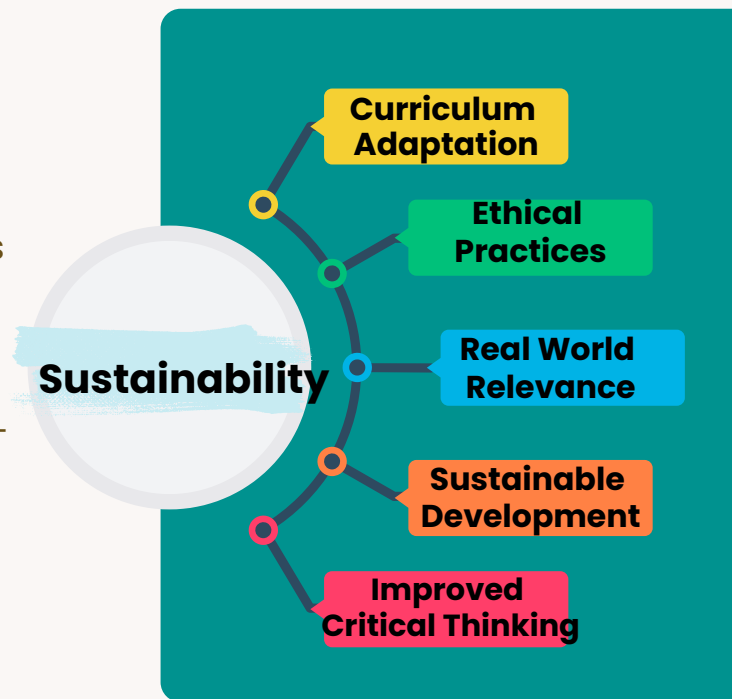
The teaching approach for this course is rooted in **active learning** and the **application of theory to practice**. It integrates several **pedagogical** strategies:

1. **Lecture-Based Learning:** Provides students with a solid foundation of theoretical principles, including human perception, design, and interaction.
2. **Problem-Based Learning (PBL):** Encourages students to apply their knowledge by solving real-world visualization challenges.
3. **Collaborative Group Work:** Fosters teamwork as students design interactive visualizations and dashboards.
4. **Hands-On Labs:** Students engage in practical sessions using leading industry tools like Tableau to create visual representations from raw data.
5. **Iterative Feedback & Critique:** Students participate in ongoing feedback sessions, learning to refine their work through peer critiques and instructor guidance.

# About the course...

## Course Learning Outcomes (CLOs)

1. CLO 1: Describe the underlying principles and techniques for effective data visualization and decision-making.
2. CLO 2: Demonstrate the ability to use a structured design process and industry-standard tools to create effective visualizations.
3. CLO 3: Develop interactive visualization systems using storytelling principles to design coherent and impactful visual narratives.



Students explore key concepts such as human perception, visual design, and interactive systems. Through lectures and practical lab sessions, they learn how to develop visualizations that foster informed decision-making. The course also emphasizes ethical data representation, helping students create visualizations that are both insightful and responsible.



## Approach

The course employs a range of pedagogical approaches, including **lecture-based learning** to introduce core visualization principles, **problem-based learning** to tackle real-world datasets, and **collaborative group work** to foster teamwork and diverse perspectives. Students actively use an industry-standard tool such as **Tableau**, allowing them to develop both the **technical skills and storytelling techniques** that enhance the clarity, impact, and ethical use of data.

# Assessment

Assessment is designed to reinforce the learning outcomes through a combination of **quizzes, assignments, lab tests, and a group project**. Quizzes assess theoretical understanding, while lab tests and assignments evaluate practical tool proficiency. The group project challenges students to develop interactive, real-world visualizations, integrating feedback through iterative critique sessions that foster continuous improvement and critical thinking.

Ultimately, my goal is **to inspire students to become adept data storytellers or data designers**, prepared to navigate and contribute meaningfully to a data-driven world.

# Teaching Reflections and Future Vision

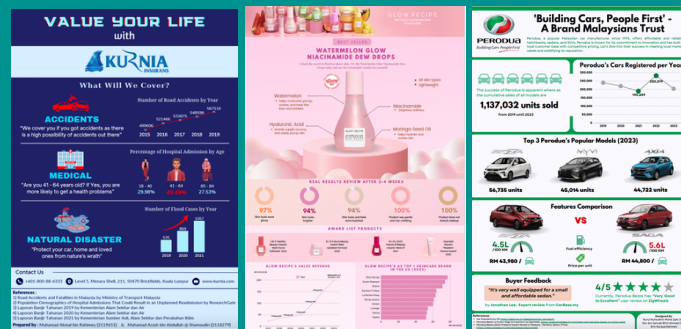
The success of the teaching approach is evident in the progress students make from conceptual understanding to mastery of data visualization tools. My commitment to continuous improvement in the classroom involves adapting the curriculum to the latest trends in information visualization and incorporating feedback from students to enhance learning outcomes.

- Moving forward, I aim to:
- Integrate More Interactivity
  - Expand Ethical Discussions
  - Inspire Data Storytelling
  - Engage with industries

# Students' Involvement

## Learning by doing (some examples):

- 1. Class Discussion & Activities:** Choosing the right charts for the right data, in class/ via **Padlet**
- 2. Assignments - Example: Data-driven Infographic Design Poster**
  - a. Iterative Feedback & Critique:** Students get to redesign the poster, after receiving feedback through peer critiques and instructor guidance.



- **Group work - Example: Designing Interactive Dashboard for Business Decision Making**
  - **Iterative Feedback & Critique:** Students design and develop, present, getting peer critiques and instructor guidance to improve their projects.

