



# RMU 4U

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**Research Management Unit**  
Universiti Teknologi MARA Cawangan Kedah

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## RECTOR'S NOTE



**Prof. Dr Roshima Said**  
Acting Rector

***"Together we advance knowledge with integrity, creativity, and purpose—many voices united to shape a brighter, sustainable future."***

Assalamualaikum warahmatullahi wabarakatuh,

Alhamdulillah, with gratitude to Allah SWT, I am pleased to welcome you to the fourth volume of RMU4U e-Bulletin. This publication continues to serve as a reflection of our vibrant intellectual community at UiTM Kedah, bringing together voices from diverse disciplines and perspectives. In this issue, with 42 insightful contributions, we witness not only the richness of research topics but also the strength of our shared purpose. While the papers range from sustainability in fashion and design, digital literacy, and artificial intelligence to law, economics, and cultural heritage, they are united by a common aspiration: to advance knowledge that is meaningful, ethical, and impactful for society.

Our academic journey is significant because of this harmony amid diversity. Whether addressing contemporary challenges in technology and governance or celebrating the timeless values of culture and tradition, our scholars demonstrate that knowledge is most powerful when it is connected, when different fields meet at the crossroads of innovation, integrity, and service to the community.

As Rector, I am profoundly inspired by the dedication, innovation, and scholarly excellence demonstrated by our academics and researchers. You are not only advancing knowledge within our university but are also fulfilling UiTM's noble mission, creating impactful ideas that serve the nation and uplift the ummah.

Your work reflects a deep commitment to relevance, integrity, and service. Let us continue to nurture a culture of collaboration, creativity, and excellence, ensuring that our contributions remain forward-looking, transformative, and rooted in the needs of society. Together, we are shaping a brighter, more sustainable future through education, research, and innovation.

Congratulations to all the dedicated contributors whose passion and perseverance have brought this volume to life. My heartfelt appreciation goes to the Research Management Unit for their steadfast leadership and solid commitment in making this achievement possible. May RMU4U continue to shine as a beacon of knowledge, uniting diverse voices in a shared mission of discovery and excellence. Together, may we be inspired to reach even greater heights in the pursuit of impactful research and innovation.

One purpose. One vision. Many voices, one future.

Sincerely,  
Prof. Dr Roshima Said  
Acting Rector,  
Universiti Teknologi MARA Keda

## A MESSAGE FROM THE CHIEF EDITOR



**Dr Azyyati Anuar**  
Chief Editor,  
RMU4U E-Bulletin

***"RMU4U Volume 4 celebrates diverse scholarship, uniting research, innovation, and culture to inspire collaboration, sustainability, and inclusive growth."***

We are pleased to present Volume 4 of RMU4U, a platform dedicated to showcasing research, innovation, and thought leadership across diverse academic disciplines. This issue reflects the dynamic intellectual ecosystem we strive to cultivate, highlighting contributions that bridge theory and practice while addressing pressing contemporary challenges. In the Business, Accounting, and Finance section, we feature 15 insightful papers that explore the evolving landscape of global markets, financial resilience, sustainable accounting practices, and digital transformation in business operations.

These works not only provide empirical findings but also propose actionable frameworks for industry adoption, underscoring the vital role of research in shaping competitive and ethical enterprises. The Designer Thoughts segment presents 6 stimulating papers that merge creativity with problem-solving. From design thinking methodologies to innovation in product aesthetics and usability, these contributions remind us that design is not merely about form but about crafting meaningful user experiences.

This section will be of particular interest to those who value the intersection of artistry, functionality, and human-centered solutions. Our IR 5.0 category brings together 6 pioneering papers examining the fusion of automation, artificial intelligence, and human capital development in the context of the Fifth Industrial Revolution. The authors challenge readers to consider how technology can be harmonized with ethical and inclusive practices, ensuring that digital progress translates into equitable societal benefits. In the Law and Policy section, 7 comprehensive papers analyze legal reforms, governance frameworks, and policy innovations that respond to shifting socio-economic realities.

The breadth of topics from regulatory compliance in emerging industries to community rights in a globalized economy reflects the critical role of law as both a safeguard and an enabler of change. The Literature and Culture segment enriches this volume with 8 thought-provoking papers that delve into narratives, identities, and cultural dialogues shaping societies today.

Whether revisiting classic literature through modern lenses or exploring contemporary cultural phenomena, these works invite readers to appreciate the role of the humanities in fostering empathy, critical thinking, and cultural continuity. Collectively, these 42 scholarly contributions affirm the breadth and depth of academic engagement within our community. They underscore our commitment to advancing knowledge that is relevant, impactful, and forward-looking. This volume is not only a testament to our contributors' dedication but also a resource for policymakers, practitioners, educators, and learners who seek informed perspectives and innovative solutions. We extend our heartfelt appreciation to all authors, reviewers, and editorial team members whose collective efforts have made this publication possible. We hope that RMU4U Vol. 4 will spark dialogue, inspire collaboration, and contribute to the enrichment of both academic scholarship and practical application.

Let us continue to explore, innovate, and contribute, together shaping a future where knowledge serves as the foundation for sustainable and inclusive growth.

Warm regards,  
Dr Azyyati Anuar  
Chief Editor,  
RMU4U E-Bulletin

# COLLABORATIVE TEACHING IN THE ERA OF IR 5.0

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The integration of collaborative teaching methodologies within the framework of the Fifth Industrial Revolution (Industry Revolution 5.0 or IR 5.0) necessitates a paradigm shift in pedagogical approaches, moving beyond traditional, instructor-centered models to embrace student-centric, interactive learning environments (Eskiyurt & Özkan, 2024; Laal & Ghodsi, 2012). Collaborative learning, characterized by shared inquiry and reciprocal engagement, fosters a unique intellectual and social synergy between teachers and students, thereby enhancing the overall teaching and learning process (MacGregor, 1990). Collaborative teaching requires educators to be adaptable, innovative, and willing to compromise, fostering an environment where shared decision-making and mutual respect are paramount (Orzolek, 2018).



In the Malaysian context, the adoption of collaborative teaching within the framework of IR 5.0 presents a unique opportunity to enhance the quality of education and equip students with the skills and competencies necessary to thrive in a rapidly changing global landscape (Salleh et al., 2011). The Malaysian government's commitment to Vision 2020 highlights the importance of innovation and education in elevating human capital, emphasizing the need for creative thinkers and innovators who can contribute to the nation's economic and social progress (Romy, 2021). The integration of information and communication technology (ICT) in education aligns with national education policies and initiatives aimed at enhancing the efficiency and effectiveness of learning (Hidayah et al., 2020).

However, despite these efforts, challenges remain in ensuring equitable access to technology and ICT skills across all regions and communities in Malaysia (Hu & AlSaqqaf, 2021). While virtual learning environments have been introduced to foster internet-enabled learning, ongoing efforts are needed to address disparities in digital literacy and infrastructure, particularly in rural areas and underserved communities (Zulkefli et al., 2018). The integration of technology in Malaysian schools is seen as a means of improving and enhancing the learning experience, increasing classroom efficiency, and equipping students with the necessary skills to compete globally (Iberahim et al., 2023). By aligning educational practices with the demands of the digital era, Malaysia can harness the transformative potential of IR 5.0 to cultivate a generation of lifelong learners, critical thinkers, and innovative problem-solvers.

In the context of IR 5.0, collaborative teaching offers numerous advantages, including enhanced student engagement, a deeper understanding of subject matter, and the development of essential skills such as communication, teamwork, and problem-solving (Chuang, 2014). The advantages of collaborative learning are multifaceted, yielding positive outcomes across a spectrum of domains including social dynamics, psychological well-being, academic achievement, and assessment efficacy (Laal et al., 2012). By working together to solve problems, complete tasks, or create products, students actively participate in their learning process, leading to greater knowledge retention and stronger critical thinking skills (Laal & Ghodsi, 2012).

Supporting collaborative teaching initiatives is crucial in the era of IR 5.0 due to their potential to transform education and prepare students for future challenges and opportunities. Collaborative teaching can address many issues that have persisted in conventional industrial-age education as it transitions into a digital society (Surya & Mulyanti, 2020). Technology integration involves more than merely incorporating digital devices; it entails leveraging these tools to enhance pedagogical strategies, foster student engagement, and cultivate a dynamic learning environment.

In conclusion, collaborative teaching is a vital approach in the era of the Fifth Industrial Revolution. This new phase focuses on using technology to support human values such as cooperation, creativity, and well-being. By encouraging teamwork among teachers, students, and even AI tools, collaborative teaching helps students develop key future-ready skills. It also promotes learning that is more engaging, inclusive, and adaptable. As education continues to evolve with emerging technologies, collaborative teaching provides a robust and human-centered method to prepare students for an ever-changing world.



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