

CURRICULUM VITAE

ASSOC. PROF. TS. DR. NOOR DAYANA ABD HALIM

Academic Leader | Educational Technologist | Researcher | Professional Technologist
Department of Advanced Learning Technology
Faculty of Educational Sciences and Technology
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PERSONAL WEBSITE

[UTM Scholar](#)

EXECUTIVE PROFILE

Assoc. Prof. Ts. Dr. Noor Dayana Abd Halim is an academic, researcher, educational technologist and academic leader at Universiti Teknologi Malaysia (UTM). She currently serves as Head of the Department of Advanced Learning Technology at Faculty of Educational Sciences and Technology. Her expertise spans educational technology, e-learning, online and open and distance learning, augmented reality, social learning, learning analytics, STEM education and innovative learning environments.

With more than 15 years of academic experience, she has progressed from Tutor and Senior Lecturer to Associate Professor, while contributing in strategic leadership roles including Director, Academic Manager, Programme Coordinator and Head of Research Group.

PROFESSIONAL SNAPSHOT

CURRENT ROLE

Head of Department

ACADEMIC EXPERIENCE

15+ Years

RESEARCH FIELD

Educational Technology

SUPERVISION PORTFOLIO

59 Completed

RESEARCH GRANTS

96 Projects

YSN-ASM

Science & Education Outreach

AREAS OF EXPERTISE

- Educational Technology and Digital Pedagogy
- Online, Blended, Open and Distance Learning
- Augmented Reality, Mobile Learning and Immersive Learning
- Learning Analytics and Online Collaborative Learning
- STEM and Science Education
- AI in Education and Innovative Learning Environments

ACADEMIC QUALIFICATIONS

Doctor of Philosophy (Ph.D.)

Educational Technology / Universiti Teknologi Malaysia | 2012

Bachelor of Science and Computer with Education (Chemistry) (Hons.)

Universiti Teknologi Malaysia | 2009

ACADEMIC AND LEADERSHIP EXPERIENCE

Head of Department, Advanced Learning Technology

Faculty of Educational Sciences and Technology, UTM | 2025 – Present

Director, Educational Sciences, Mathematics and Creative Multimedia

School of Education / FSSH, UTM | 2023 – 2025

Academic Manager

School of Education / FSSH, UTM | 2022 – 2023

Associate Professor

Universiti Teknologi Malaysia | 2021 – Present

Programme Coordinator, Master of Education (Educational Technology) – ODL

Universiti Teknologi Malaysia | 2020 – 2021

Senior Lecturer

Universiti Teknologi Malaysia | 2012 – 2021

Head of Research Group, Creative and Innovative Technology in Education (CITE)

Universiti Teknologi Malaysia | 2017 – 2021

PROFESSIONAL MEMBERSHIPS

- Malaysian Board of Technologists (MBOT) – Professional Technologist (Ts.)
- Young Scientists Network–Academy of Sciences Malaysia (YSN-ASM) – Member / Affiliate
- IEEE and IEEE Education Society – Member
- Society of Engineering Education Malaysia (SEEM) – Member

RESEARCH & GRANT PORTFOLIO

Extensive experience as Principal Investigator and research team member across international, national and university-funded projects.

ROLE / FUND TYPE	PROJECTS	TOTAL VALUE
PI – International	1	RM5,100
PI – National	4	RM193,100
PI – UTM	10	RM306,400
Member – International	5	RM311,277.11
Member – National	25	RM1,110,270
Member – UTM	52	RM1,572,948.83

PORTFOLIO VALUE: RM3.50 MILLION+ | TOTAL PROJECTS: 96

SELECTED RECENT GRANTS (2021–2026)

PROJECT	ROLE	TYPE	VALUE	PERIOD
Development of Digital Teaching Materials Based on Multiple Learning Objects on the Topic of “Climate Change”	Principle Investigator	International	RM5,100	2024–2026
A Framework of Online Pedagogical Home-Based Learning (PDPR) for Reducing Cognitive Load Among Secondary School Students	Principle Investigator	External	RM65,900	2021–2024
Social Learning Environment Features for Online Collaborative Learning in Enhancing Critical Thinking	Principle Investigator	External	RM5,000	2022–2024

PROJECT	ROLE	TYPE	VALUE	PERIOD
Framework for Engineering Educators' Professional Development in Artificial Intelligence Education Using Diffusion of Innovations Theory	Member	UTM	RM128,793	2023–2027
A Self-Directed Learning Competencies Framework of Science Teachers to Use ESTEM for Interdisciplinary Project-Based Learning	Member	UTM	RM101,050	2024–2027

POSTGRADUATE SUPERVISION

A substantial postgraduate supervision portfolio covering PhD and Master's studies in educational technology, computational thinking, project-based learning, critical thinking, augmented reality, chemistry education, online learning, blended learning, STEM education, artificial intelligence in education and self-regulated learning.

CATEGORY	COMPLETED	ONGOING
PhD – Main Supervisor	8 Graduated	10 Ongoing
PhD – Co-Supervisor	6 Graduated	7 Ongoing
Master by Research – Main Supervisor	4 Graduated	-
Master by Taught Course – Main Supervisor	34 Graduated	4 Ongoing
Master by Mixed Mode – Main Supervisor	4 Graduated	-

COMPLETED 59	ONGOING 21	TOTAL PORTFOLIO 83
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INTERNAL AND EXTERNAL EXAMINATION / VIVA

EXAMINATION ROLE	NUMBER
MSc. Internal Examiner	30
MSc. External Examiner	11
PhD. External Examiner	20
Other Examiner Roles	3

SELECTED RECENT PUBLICATIONS (2020–2026)

Abd Rahman, K., & Abd Halim, N. D. (2026). Blended learning in mathematics education: A bibliometric analysis of research trends and patterns. *International Journal of Education in Mathematics, Science and Technology*, 14, 717–736

- Nordin, N. A., Abd Halim, N. D., & Dahri, N. A. (2026). An empirically validated pedagogical framework to reduce cognitive load in online learning environments. *Iran Journal of Computer Science*, 9(1), Article 24. <https://doi.org/10.1007/s42044-025-00382-1>
- Abd Hamid, S. H., Md Noor, N., & Abd Halim, N. D. (2026). Artificial intelligence for academic writing: A bibliometric analysis (2022–2026). *Innovative Teaching and Learning Journal*, 10(1), 67–78. <https://doi.org/10.11113/itlj.v10.218>
- Zheng, H., Abd Halim, N. D., & Song, X. (2025). The use of mindmap and its effectiveness in different fields of foreign language learning: A systematic review (2014–2024). *International Journal of Academic Research in Progressive Education and Development*, 14(1), 1360–1380. <https://doi.org/10.6007/IJARPED/v14-i1/24359>
- Abd Rahman, K., & Abd Halim, N. D. (2025). Augmented reality in learning geometry: A review of its advantages and challenges. *International Journal of Academic Research in Progressive Education and Development*, 14(4), 87–105. <https://doi.org/10.6007/IJARPED/v14-i4/26676>
- Ong Long, O. A. H. A. P., Abd Halim, N. D., & Abdul Hanid, M. F. (2025). Global trends and research frontiers in game-based learning: A 2009–2025 bibliometric perspective. *International Journal of Academic Research in Progressive Education and Development*, 14(4), 726–747. <https://doi.org/10.6007/IJARPED/v14-i4/26740>
- Saidin, N. F., Abd Halim, N. D., Yahaya, N., & Zulkifli, N. N. (2024). Enhancing students’ critical thinking and visualisation skills through mobile augmented reality. *Knowledge Management & E-Learning*, 16(1), 1–41. <https://doi.org/10.34105/j.kmel.2024.16.001>
- Abd Halim, N. D., Abdul Mutalib, M., Mohd Zaid, N., Mokhtar, M., Abd. Majid, F., & Haslee Sharil, W. N. E. (2024). The use of social media to enhance critical thinking in online learning among higher education students. *International Journal of Interactive Mobile Technologies*, 18(6). <https://doi.org/10.3991/ijim.v18i06.48033>
- Khairi, A. S. F., Mohd Zaid, N., Abdullah, Z., Abd Halim, N. D., Md Noor, H., Mohamad, S. N. A., & Cheong, T. H. (2024). Computational thinking levels of non-computing students through peer learning strategies in online collaborative learning environment. *Asian Journal of University Education*, 20(3), 728–740. <https://doi.org/10.24191/ajue.v20i3.27856>
- Bunsu, C., & Abd Halim, N. D. (2023). Perception and satisfaction among open and distance learning students in Universiti Teknologi Malaysia. *Information Technologies and Learning Tools*, 95(3), 143–161. <https://doi.org/10.33407/itlt.v95i3.5151>
- Zulkifli, N. N., Abd Halim, N. D., Yahaya, N., van der Meijden, H., Mohd Zaid, N., A Rashid, A. H., & Hashim, S. (2021). Online reciprocal peer tutoring approach in Facebook: Measuring students’ critical thinking. *International Journal of Emerging Technologies in Learning (iJET)*, 16(23), 16–28. <https://doi.org/10.3991/ijet.v16i23.27451>
- Zulkifli, N. N., Abd Halim, N. D., Yahaya, N., & van der Meijden, H. (2020). Patterns of critical thinking processing in online reciprocal peer tutoring through Facebook discussion. *IEEE Access*, 8, 24269–24283. <https://doi.org/10.1109/ACCESS.2020.2968960>

INNOVATION AWARDS & RECOGNITION

YEAR	AWARD	LEVEL / CATEGORY
2024	Anugerah Penyeliaan	Faculty of Educational Sciences and Technology
2022	Anugerah Khas YB Menteri Pendidikan Malaysia (AKRI)	National Rekabentuk Kurikulum dan Penyampaian Inovatif Ketua
2020	New Academia Learning Innovation (NALI) Teaching Award	Universiti Teknologi Malaysia
2020	APC Citra Karisma UTM)	Universiti Teknologi Malaysia
2019	Anugerah Khas YB Menteri Pendidikan Malaysia (AKRI)	National Pengalaman Pembelajaran Imersif Teradun Ahli
2019	Anugerah Perkhidmatan Cemerlang (APC)	Faculty of Social Sciences and Humanities

YEAR	AWARD	LEVEL / CATEGORY
2015	Anugerah Inovasi Fakulti Pendidikan UTM	Faculty of Education
2012	APC Citra Karisma UTM	Universiti Teknologi Malaysia

YSN-ASM CONTRIBUTIONS

- Science@Media Working Group for the YSN-ASM Executive Committee in Year 2022
- Editor, ASM Science Journal.
- Editor, YSN-ASM Science Outreach Handbook.
- Developer, IBSE YSN-ASM Module in Open Learning: “Begitulah Sang Suria – Daripada Cahaya kepada Elektrik”.
- Committee Member, YSN-ASM TikTok Challenge 2022.
- Committee Member and Organizing Contributor for selected YSN-ASM scientific, science education and outreach activities, including the National Science Challenge.
- Jury and Reviewer for scientific, educational and science communication activities.
- Active Contributor to Science Education and Teacher Training initiatives, including IBSE-related workshops and programmes.
- Participant and Contributor, YSN Turun Padang Programme.
- Contributor, YSN-ASM Action Plan 2 (2025).
- Contributor and Participant, YSN-ASM Colloquium and other science outreach activities, including the ASM Southern Roadshow.
- Developer and Invited Speaker for selected YSN-ASM Microcredential and Open Learning initiatives.