



Dr. Patcharapan Siriwat

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SHORT PROFESSIONAL BIO:

Dr. Patcharapan Siriwat is a Lecturer at the Institute for Innovative Learning, Mahidol University. Her academic expertise lies in science communication, STEM education, and design thinking in educational contexts. She has experience in research and professional development, particularly in fostering innovation-driven learning environments and advancing design thinking processes among educators. Her interdisciplinary background bridges life sciences, science policy, and educational innovation, positioning her strongly within the domain of innovation and educational design.

PUBLICATION PROFILE: [Google Scholar](#)



FULL BIO

EDUCATION:

Degree	Degree Name	University	Year
Ph.D.	Education	The School of Environment, Education and Development (SEED) University of Manchester, United Kingdom	2016
M.Sc.	Science and Technology Policy and Management	Institute for the Study of Science, Technology and Innovation (ISSTI) University of Edinburgh, United Kingdom	2009
M.Sc.	Biochemistry	Faculty of Science, Mahidol University	2008
B.Sc.	Environmental Science and Technology	Faculty of Environment and Resource Studies, Mahidol University	2000

INTERESTING RESEARCH TOPICS OR SPECIALTIES:

1. Design Thinking for Education and Innovation
2. Life Science Education
3. Environmental Education
4. Health and Science Communication
5. Professional Development in Higher Education

ACADEMIC APPOINTMENT AND TEACHING:

2016- Present Instructor, Science and Technology Education Program, Institute for Innovative Learning, Mahidol University

TEACHING EXPERIENCES:

Dr Siriwat has contributed to a wide range of graduate-level courses, including:

- Instructional Science
- Innovation in Science and Technology Education
- Research Seminar in Science and Technology Education
- Advanced Research Project in Science and Technology Education



- Emerging Technology for Learning
- Biology Education
- Psychology and Philosophy for Education
- Measurement and Evaluation in Education
- Design Thinking for Educators

Her teaching emphasises innovation-driven pedagogy, design-based problem-solving, and the integration of emerging technologies in education.

RESEARCH EXPERIENCES:

- 2025 **Principal Investigator**
Science Communication Barriers in Thailand: Perspectives from Science Communicators, Policy Stakeholders, and the Public
(Mahidol University Young Researcher Grant – Completed)
- 2022 **Co-Researcher**
Essential Professional Skills for Graduate Students in Social Sciences and Humanities
Graduate School, Mahidol University
- 2022 **Co-Researcher**
Development of a Digital Ecosystem to Enhance Design Thinking Knowledge and Skills among Lower Secondary Science Teachers
Strategic Fund (SF), 21st Century Education Research Program, National Research Council of Thailand (2022)

ACADEMIC SERVICE AND PROFESSIONAL ENGAGEMENT:

- Regular Speaker, Mahidol University Academic Development Program (MU-ADP) (Faculty Competency Levels 1 and 2 under MUPSF standards)
- Invited Speaker, Faculty Development Programs for External Institutions
Topic: *Technology Enhancement for Effective Teaching and Learning*
- Invited Speaker, STEM Activity Development Program (Upper Primary Level)

LEADERSHIP AND ADMINISTRATIVE ROLES:

- Member, University Council (Faculty Representative), Mahidol University
- Secretary-General, Faculty Senate, Mahidol University
- Committee Member, Student Affairs, Graduate School, Mahidol University
- Committee Member, Academic Affairs, Institute for Innovative Learning
- Committee Member, Networking, Public Relations, and Marketing, Institute for Innovative Learning



SCHOLARSHIPS AND RESEARCH GRANTS:

- Teaching Assistantship, Mahidol University Graduate School (2005–2006)
- Strategic Scholarship for Frontier Research Network (PhD-SFR), Office of the Higher Education Commission, Thailand (2008–2015)
- Young Researcher Grant, Mahidol University (2018–2019)
- National Research Council of Thailand Grant: Digital Ecosystem for Design Thinking Development (2022–2023)

PUBLICATIONS:

1. Wongprasert, B., Jittam, P., Siriwat, P. & Sajjanroj, S. (in press). Empowering Village Health Volunteers in Ubon Ratchathani Province through Experiential Learning Models: Enhancing Understanding of Hyperglycemia and Kidney Health. *Journal of Public Health and Development*.
2. Siriwat, P. (2025). Experts' Views on Science Communication Barriers: A Thai Perspective. *Asia Social Issues*, 18(6), 278450. <https://doi.org/10.48048/asi.2025.278450>
3. Siriwat, P., Sajjanroj, S., Longpradit, P., Visitbunditkul, V., & Thongpitaktarvorn, P. (2024). *Teachers' Design Cloud Lab: Building Design Thinking Skills with Online Synchronous and Asynchronous Learning*. In C. Bonk & G. Marks (Eds.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 350–359). Singapore: AACE.