As a research-intensive university, KMUTT receives consistently favorable ratings for research quality among the top universities in Thailand. Two recent evaluations confirm KMUTT's stature in the research community: the Third (2014) Rating of Research Quality in Science and Technology at Thai Higher Education Institutions and Thai Frontier Author Awards.

KMUTT had the third most disciplines rated "excellent" when the Thailand Research Fund (TRF) announced ratings of research quality on 1 March, 2016. Despite being much smaller, KMUTT has eight disciplines in the “excellent” class with a TRF Index between 4.5 and 5.0, compared to Mahidol University's 12 and Chulalongkorn University's 11 disciplines. Four disciplines at KMUTT, Mechanical Engineering; Environmental Technology at the Joint Graduate School of Energy and Environment (JGSEE); Food Engineering in TRF's Interdisciplinary Engineering category; and Mathematics reached the maximum 5.0 rating. These four disciplines were also rated best in the nation in these areas, with the exception of Environmental Technology, for which KMUTT tied with the Asian Institute of Technology. The other four disciplines at KMUTT that were rated excellent are Energy Technology at the School of Energy, Environment and Materials (4.8), Energy Technology at JGSEE (4.5), Civil Engineering (4.5), and Biotechnology at the School of Bioresources and Technology (4.5). In addition to the eight KMUTT disciplines rated excellent, another two disciplines were rated between 4.0 and 4.4.

The TRF rated 21 universities in 36 disciplines based on an evaluation of their research output and impact from 2012-2014. The TRF Index is derived from a combination of four weighted research indicators: 1) International journal equivalent publications per faculty member; 2) International journal equivalent publications per discipline; 3) Citations per faculty member; and 4) Citations per discipline. International journal equivalent publications include publications in journals listed in Scopus and the Thai Citation Index (TCI) in addition to registered patents and letters of certification, showing use of published research results.

Research strength in these disciplines is also highlighted by the Thai Frontier Author Awards. The Thai Office of the Higher Education Commission (OHEC) in cooperation with Thomson Reuters developed the Thai Frontier Author Award in 2015 to recognize Thailand's most promising researchers who authored papers that are in the top 1% of cited papers in a rapidly developing or emerging research area and encourage researchers to publish their work in high quality international journals.

Five KMUTT professors were honored for pushing the frontiers of human knowledge with their publications. From the Faculty of Engineering, recipients were Professor Dr. Somchai Wongwises from the Department of Mechanical Engineering and Professor Dr. Booncharoen Sirinaovakul, Dean of Engineering and researcher in the Department of Computer Engineering. Recipients in the field of Environmental Technology and Management were Assistant Professor Dr. Jaruwat Chontanawat from the Department of Social Sciences and Humanities in the School of Liberal Arts and Associate Professor Dr. Nakorn Worasuwannarak from the Advanced Fuel Processing Laboratory at JGSEE. In Mathematics, Associate Professor Dr. Poom Kumam from the Department of Mathematics in the Faculty of Science was recognized for authoring six highly cited journal articles in research fronts related to solving fixed point and proximity point problems. As a part of KMUTT's commitment to high quality research, the identification of research that expands human knowledge and understanding, making key discoveries or synthesizing two or more existing fields is critical.

To select frontier authors, Thomson Reuters began with highly cited papers published from 2005 to 2014 by Thai authors in journals in the Essential Science Indicators database. These, and other highly cited papers, are then grouped into topical research fronts by doing a statistical analysis comparing how often pairs of papers are cited together by later authors. Frequent co-citation is used as a statistical indicator that the papers address a similar topic. Then publications in each research front are monitored for six months to confirm the topical association and continuing scientific interest in the cited paper and research front.

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