

4th ACE Grant Call

The ACE Programme seeds bold and unconventional research at disciplinary intersection. ACE grant calls can be either 'Open', to nourish unfettered, exceptional or curiosity-driven enquiry, or 'Thematic', when there is a need to rapidly intensify areas of strategic importance to NTU. In either case, the selection process is strongly biased towards uniqueness, timeliness and excellence.

The **4th ACE Call** is a Thematic round and is **accepting proposals from 15 May 2020 to 10 July 2020, 17:00 hrs.**

Proposals are sought in two broad themes:

(1) Food Science: To prepare for the forthcoming launch the Temasek Life Lab TLL applications are requested where interdisciplinary topics and skills converge to deliver breakthrough innovation and technology. Clear translational opportunities for the development of a future effective food system should be emphasised. Focus areas are not restricted, but will likely include elements that enhance food production, nutrition or sustainability.

(2) Responsible Technology: Due to the convergence of ideas that are at the crossroads of humanities, social science, business, education and engineering with a AI, autonomous systems or data science component applications cutting across these disciplines are of growing importance. These projects will address the societal impact of technological innovation that aligns well with the mission of the NTU Institute of Science and Technology for Humanity (NISTH).

Eligibility criteria:

- All faculty across NTU are eligible
- The proposed project must include participating faculty from at least two different colleges and/or research institutes

Application process:

- Applicants should complete the attached application form by **10 July 2020, 17:00 hrs** and **submit by e-mail to ace@ntu.edu.sg**

Successful applicants from the previous ACE Calls

- To-date, 11 projects have been funded by the ACE seed grant. Each project is supported with up to S\$200,000 funding over 2 years and given the freedom to conduct research outside the usual domain—constraints. ACE grant aims to seed innovative and interdisciplinary ideas that will lead to competitive proposals and eventually help the teams making impactful achievements from their respective projects.

S/N	Proposal	Research Team
1	Toward better future: Merging the lines between Fashion, Materials Science, Computer Science and Engineering	• Galina Mihaleva (ADM) - PI • Ong Yew Soon (SCSE) – Co-PI • Chen Xiaodong (MSE) – Co-PI
2	Design and development of digital coaching environment for Deeper Experiential Engagement Projects: co-evolution of education with Artificial Intelligence	• Sze Chun Chau (SBS) - PI • Wilson Goh Wen Bin (SBS) – Co-PI • Tan Ooi Kiang (EEE) – Co-PI • Christopher John Hill (SOH) – Co-PI • Chua Bee Leng (NIE) – Co-PI • Stefanie Chye Yen Leng (NIE) – Co-PI
3	Tracking seeds and their animal dispersers in tropical forests: using engineering advances to address long-standing challenges in biodiversity conservation	• Norman Lim T-Lon (NIE) - PI • Lee Yee Hui (EEE) – Co-PI • Shawn Lum Kaihekulani Yamauchi (ASE) – Co-PI
4	Detecting and Tracking Volcanic Ash Using Social Media Data	• Cong Gao (SCSE) – PI • Benoit Taisne (ASE) – Co-PI
5	A Tale of Two Deficits: Causality & Care in Medical AI	• Melvin Chen (SOH) – PI • Chew Lock Yue (SPMS) – Co-PI
6	Tracing Early Trading in Singapore Using Geochemical Fingerprints and Artificial Intelligence on Archaeological Artefacts	• Ivy Yeh Hui-Yuan (SOH) - PI • Wang Xianfeng (ASE) – Co-PI • Wen Yonggang (SCSE) – Co-PI
7	Geography of Fake News: Misinformation Spreading and Implication for Capital Markets	• Alper Darendeli (NBS) - PI • Tay Wee Peng (EEE) – Co-PI • Sun Aixin (SCSE) – Co-PI
8	Artificial Intelligence for the Prediction of Alternative Splicing from Epigenomics and Transcriptomics Data in Cancer	• Melissa Fullwood (SBS) - PI • Kwoh Chee Keong (SCSE) – Co-PI • Francesc Xavier Roca Castella (SBS) – Co-PI • Kelin Xia (SPMS) – Collaborator
9	Towards a Data-Driven, Explainable Framework for AI Start-ups' Due Diligence	• Wen Yonggang (SCSE) – PI • Boh Wai Fong (NBS) – Co-PI • S. Viswanathan (NBS) – Co-PI • Kwan Min Lee (WKWSCl) – Collaborator

10	From https to httpQ: envisioning ethics, security and trust in a world with quantum computers. (Q is for quantum)	• Koh Teck Seng (SPMS) – PI • Christina Chuang (SOH) – Co-PI • Chew Lock Yue (SPMS) – Collaborator
11	A Study of Adversarial Examples for Proactively Protecting Images against DeepFake and DeepNude	• Adams Kong Wai-Kin (SCSE) – PI • Guo Jian (SPMS) – Co-PI • Xu Hong (SSS) – Co-PI

Interested applicants shall be asked to complete an application form outlining their research project of interest and submit the completed proposals to ace@ntu.edu.sg

 [\[ACE\] Application Form.docx](#)

 [Annex A Budget.xlsx](#)

For more information refer to: <https://intranet2.ntu.edu.sg/ace/Pages/index.aspx>

ACE Clinics will be scheduled to address any queries and assist faculty in preparation of their proposals for this ACE call.

Kindly e-mail TRACS at ace@ntu.edu.sg for available time slots.