Welcome
Competition Overview

Three Minute Thesis (3MT®) is a research communication competition developed by The University of Queensland (UQ). PhD students have three minutes to present a compelling oration on their thesis and its significance. 3MT® challenges students to consolidate their ideas and research discoveries so they can be presented concisely to a non-specialist audience.

Developed by The University of Queensland (UQ) in 2008, enthusiasm for the 3MT® concept has developed rapidly and 3MT® competitions are now held in over 600 universities and institutions across 65 countries worldwide.
Competition History

2008 - 3MT developed by The University of Queensland (UQ)
2010 - Inaugural Trans-Tasman 3MT held at UQ
2013 - Universitas21 held first U21 Virtual 3MT
2016 - Inaugural Asia-Pacific 3MT held at UQ
2020 - 900 institutions across, in more than 80 countries are holding a 3MT® event!
Judging Panel

Morning Session

• **Ann Hawkins, PhD**, Assistant Provost for Graduate Education and Research, SUNY System Administration

• **Victoria J. Brock**, Administrative Manager, College of Engineering and Applied Sciences, Environmental and Sustainable Engineering, Electrical and Computer Engineering

• **Jordan Knicely, MA**, Research Analyst, Institutional Research, Planning, and Effectiveness
Judging Panel

Afternoon Session

• **Ann Hawkins, PhD**, Assistant Provost for Graduate Education and Research, SUNY System Administration

• **Edward F. Fitzgerald, PhD**, President, Emeritus Center, Emeritus Professor, Environmental Health Sciences

• **Colleen Davis, MA**, Assistant Dean of Academic Affairs, The Graduate School
**Rules**

- A single static PowerPoint slide is permitted (no slide transitions, animations or “movement” of any description, the slide is to be presented from the beginning of the oration).
- No additional electronic media (e.g. sound and video files) are permitted.
- No additional props (e.g. costumes, musical instruments, laboratory equipment) are permitted.
- Presentations are limited to 3 minutes maximum and competitors exceeding 3 minutes are disqualified.
- Presentations are to be spoken word (e.g. no poems, raps or songs).
- Presentations are to commence from the stage.
- Presentations are considered to have commenced when a presenter starts their presentation through movement or speech.
- The decision of the adjudicating panel is final.
Judging Criteria

Comprehension & Content

• Did the presentation provide an understanding of the background and significance to the research question being addressed while explaining terminology and avoiding jargon?
• Did the presentation clearly describe the impact and/or results of the research, including conclusions and outcomes?
• Did the presentation follow a clear and logical sequence?
• Was the thesis topic, research significance, results/impact and outcomes communicated in language appropriate to a non-specialist audience?
• Did the presenter spend adequate time on each element of their presentation - or did they elaborate for too long on one aspect or was the presentation rushed?
Judging Criteria

Engagement & Communication

• Did the oration make the audience want to know more?
• Did the presenter convey enthusiasm for their research?
• Did the presenter capture and maintain their audience's attention?
• Was the presenter careful not to trivialise or generalise their research?
• Did the speaker have sufficient stage presence, eye contact and vocal range; maintain a steady pace, and have a confident stance?
• Did the PowerPoint slide enhance the presentation - was it clear, legible, and concise?
Prizes

Final

• 1\textsuperscript{st} Place: $1,000 and fully funded trip to participate in the Northeastern Association of Graduate Schools 3MT competition.
• 2\textsuperscript{nd} Place: $750
• 3\textsuperscript{rd} Place: $500
• People’s choice: $250
Yan Jiang

Atmospheric Science, PhD

Longer Summer Dry Season Observed in Congo Rainforest
Longer Summer Dry Season Observed in Congo Rainforest

Mohammad Amin Nourmohammadi

Biomedical Sciences, PhD

Passive Mapping of Receptive Language Cortex Under General Anesthesia
Mapping Receptive Language Cortex Under Anesthesia
Mirna L. Alvarez

Spanish, PhD

A Transatlantic Poetic Dialogue between Female Voices in the Vanguard
In this presentation I will discuss how the understudied female poets, Winétt de Rokha, Magda Portal, Norah Lange, Ernestina de Champourcin, were important female voices during the avant-garde movement of the 1920s.
Margeaux Cannon
Counseling Psychology, PhD
The Importance of Recommending Addiction Treatment to Patients with Chronic Pain
Thomas Peebles
Mathematics, PhD
Determinantal Varieties and Joint Spectra
\[ P = xA + yB - I \]

\[
A = \begin{pmatrix}
1 & 0 & 0 & 0 \\
0 & i & 0 & 0 \\
0 & 0 & -1 & 0 \\
0 & 0 & 0 & -i
\end{pmatrix}
\]

\[
B = \begin{pmatrix}
0 & 1 & 0 & 0 \\
0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 \\
1 & 0 & 0 & 0
\end{pmatrix}
\]

\[ x^4 + y^4 = 1 \]

\[ \sigma_p(A, B) \]
Shirley Jin
Communication, PhD
The Subtleness in Classroom Management
The Subtleness in Classroom Management
Nathaniel Williams
Political Science, PhD
Aesthetic Individuality in the Anthropocene
Andrew Thompson
Criminal Justice, PhD
Procedural (In)Justice as Inclusivity and Marginalization: Evidence from a Longitudinal Sample of Hispanic Adolescents
Clare Miller
Biology, PhD
Stopping a Virus in Its Tracks
Stopping a Virus in Its Tracks
John Michael Garbellano
Anthropology, PhD
Changing Tides and Terrain of the Hudson River: Past and Present Human-Ecosystem Relationships
Changing Tides and Terrain of the Hudson River: Past and Present Human-Ecosystem Relationships
Victorio Reyes
English, PhD
Mic Check: Finding Hip Hop's Place in the Literary Milieu
Mic Check: Finding Hip Hop’s Place in the Literary Milieu
Veronique Couttee
Biodiversity Conservation and Policy, MS
An Assessment of Leadership Practices and Training in the Environmental Sector
An assessment of Environmental Leadership practices and training
- Break -

Presentations will resume at 1:10pm.
Adam Schultze
Mathematics, PhD
Using Puzzle Games to Solve Abstract Mathematics
Using Puzzle Games to Solve Abstract Mathematics

Tableau Model

Quantum Alcove Model

3: (3,4), (2,4), (1,4)
2: (2,3), (2,4), (1,3), (1,4)
1: (1,2), (1,3), (1,4)
Tianhong Mu
Computer Science, PhD
PFOA Removal by Air-Cathode Electrocoagulation
PFOA Removal By Air-Cathode Electrocoagulation (ACEC)

Per- and Polyfluoroalkyl Substances (PFAS)

- PFAS are a group of man-made chemicals that have been manufactured and used in a variety of industries around the globe;
- Can be found in food, commercial household products, workplace, drinking water, living organisms, etc.;
- Persistent, can not be naturally degraded;
- Harmful to health: low infant birth weights, immune system problem, cancer, thyroid hormone disruption, etc.;
- Most Toxic: perfluorooctanoic acid (PFOA).
Aakriti Upadhyay
Computer Science, PhD
Approximating C-free Space Topology by Constructing Vietoris-Rips Complex
Approximating C-free space topology by constructing Vietoris-Rips complex
Panpan Yang
Educational Psychology and Methodology, PhD
Bidirectional Associations Between Adolescent Aggressive Behavior with Parental Monitoring Efforts and Parental Knowledge
Bidirectional Associations between Adolescent Aggressive Behavior with Parental Monitoring Efforts and Parental Knowledge
Phoebe Long
Counseling Psychology, PhD
Examining the Role of Patient-Provider Communication in Treatment of Chronic Pain
Examining the role of patient-provider communication in treatment of chronic pain

Communication variables predicted a larger unique relationship than opioid variables for satisfaction, trust, and perceived discrimination. This demonstrates that using opioids to increase satisfaction with care is a flawed approach.
Taylor Oathout
Criminal Justice, MA
Family Annihilators: The Psychological Profiles of Murderous Fathers
Family Annihilators: The Psychological Profiles of Murderous Fathers

Taylor Oathout

Independent Variables

- Family Dynamics
- Psychopathy
- Paternal Expectations

Dependent Variables

- Social Status
- Economic Standing

Established Profiles

1. Self-Righteous
2. Disappointed
3. Anomic
4. Paranoid

[Graphs showing data distribution for Britain (1980-2012) and US (2009-2019), with categories including Self-Righteous, Disappointed, Anomic, Paranoid, Mentally Ill, Self Preserving, Other.]
Maqsood Ahamed Abdul Careem
Electrical and Computer Engineering, PhD
Autonomous Spectrum Enforcement: A Blockchain Approach
AUTONOMOUS SPECTRUM ENFORCEMENT

Infraction Locations (Targets)
Multi-Modal Agents
Sensing Report Broadcast
Distributed Consensus
Erica Graham
Nanoscale Science and Engineering, PhD
How Close is Too Close?
PHOTONIC SYSTEM

TRANSMITTER CHIP

PHOTONIC WIRE

RECEIVER CHIP

DATA COMMUNICATION

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Sami Harmali
Business Administration, MBA
The Effects of The Anthropomorphism of Artificial Intelligence on Purchase Intention
Anthropomorphism

Artificial Intelligence
Jun Soo Lee
Economics, PhD
Why are Immigrants Healthier than Native Americans?: Evidence from Fruit and Vegetable Consumptions and Health Behaviors Explained by Place of Residence and Hurricane Index from Origin Countries
Why are immigrants healthier than native Americans?: Evidence from fruit and vegetable consumptions and health behaviors explained by place of residence and hurricane index from origin countries.

Jun Soo Lee and Donglan Zhang

"Healthy immigrant paradox"

immigrants are healthier than the native-born

a. Salmon bias hypothesis - immigrants usually choose to seek health care in their home country when they get sick

b. Self-selection hypothesis - healthy immigrants are self-selected to migrate

c. Limited understanding and research gap on how health-related behaviors that immigrants learned from their home country and maintained in the country of destination in explaining this paradox.

a. Effects of locations of residence
   a. Ethnic enclaves
   b. Immigrant density causally linked with lower fruit and vegetable prices and access to ethnic grocery stores.

b. Self-selection issues
   a. We isolate self-selection to migrate to the U.S. by exploring shocks in home countries before they immigrate to the U.S.
Ahmed Hussein
Electrical and Computer Engineering, PhD
Li-Fi for IoTs and 6G Networks
<table>
<thead>
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<th>TECHNOLOGY</th>
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8 Finalists will be announced via email on Friday, February 28th
3MT® Final
Wednesday, March 4\textsuperscript{th}
1:00-2:00pm
Campus Center West Expansion
Board Room
Thank You!