XTOP – 2019

Conference Agenda

Date: Saturday May 25, 10:00am to 20:30 (8:30pm)

Venue: Far East Telecommunications Building, Yuan Ze University

Room 3302

Website: http://www.kejiyingwen.com

About the XTOP Conferences

Overview

The Xiaotu Conference of Science and Engineering with Open Participation (XTOP), held since 2005 at leading universities in Taiwan, provides an opportunity for students in the field of engineering to present in English to their peers in a friendly setting. The conference endeavors to promote technical exchange in English among students. A unique feature of this conference is that presenters have the opportunity to receive written feedback on their presentations from established researchers, – native English speakers as well as their peers.

Motivation

The organization of this conference was prompted by two trends in Science and Engineering – *globalization*, and the rise of *interdisciplinary* research. The purpose of the conference is thus two-fold.

1. To provide students a chance to present (orally) their research in English in a standard conference setting. The hope is that this experience will give students greater confidence in presenting their work in an international setting.
2. To provide a venue in which students can meet and network with students in other universities. The hope is that these relationships will in the future give rise to fruitful collaborations.

Presentation Format

Talks (12 min talk + 3 min for questions) will be scheduled in related sessions and chaired by fellow students. All abstracts will be published electronically and archived. In general, one should prepare 12-15 view graphs for a talk:

1. Title Page (Include a picture of your supervisor)
2. Outline of the talk
3. General Introduction
4. General Introduction and Importance of the Research
5. Overview of the Research area
6. Overview of the Research area
7. Experimental techniques
8. Experimental techniques
9. Key Research Results
10. Key Research Results
11. Key Research Results
12. Conclusions & importance of the work
13. Next steps (i.e. what you will do next)
14. Possibilities for future collaboration

Session Chairs

Session	Session Chair	YZU Student ID
S3	Zianda (莉安妲)	1040566
S1	Wilson Lo (羅偉宸)	1060663
S4	Jeffrey Chen (陳子顥)	1063715
S2	Jasur (路杰旭)	1042964
Reserve	Sakhile (沙克里)	1063742

Schedule at a Glance

Time	Activity
9:45 ~ 10:00	Conference Registration
10:00 ~ 12:00	Session 1: Modern Science
12:00~13:00	Lunch Break
13:00~15:00	Session 2: Scientists
15:00~15:30	Coffee Break
15:30~17:30	Session 3: Artificial Intelligence
17:30 ~ 18:30	Dinner Break
18:30 ~ 20:30	Session 4: Smorgasbord
20:30 ~ 20:45	Discussion Break
20:45~ 21:00	Closing Remarks & Award Ceremony

Sessions in Detail

S1: 10:15 to 12:00 Chair: Wilson Lo (羅偉宸) Theme: Modern			
Time	**Speaker**	**Title**	**Evaluation**
10:00 ~ 10:15		Welcome Speech	低 0→10 特
10:15 ~ 10:30	Zianda	Facial Recognition	
10:30 ~ 10:45	Chad	Nuclear Power	
10:45 ~ 11:00	Ray	Hybrid Vehicle	
11:00 ~ 11:15	Kevin Wang	The drone	
11:15 ~ 11:30	Eric	AR technic	
11:30 ~ 11:45	Edward	Human cloning	
11:45 ~ 12:00	John	3D Printing – Bioprinting	

S2: 13:00 to 15:00 Chair: Jasur (路杰旭) Theme: Scientists			
Time	**Speaker**	**Title**	**Evaluation**
13:00 ~ 13:15	Wilson	Madame Marie Curie	
13:15 ~ 13:30	Sakhile	Alfred Wegener	
13:30 ~ 13:45	Alan	Michael Faraday	
13:45 ~ 14:00	Nora	Stephen William Hawking	
14:00 ~ 14:15	Ian	the inventor of alternating current - Nikola Tesla	
14:15 ~ 14:30	Andrew	Elon Musk	
14:30 ~ 14:45	Benjamin	Blaise Pascal	
14:45 ~ 15:00	Kevin Huang	Steve Jobs	

S3: 15:30 to 17:30 Chair: Zianda (莉安妲) Theme: AI			
Time	**Speaker**	**Title**	**Evaluation**
15:30 ~ 15:45	Theon	IOV(internet of vehicles)	
15:45 ~ 16:00	Jeffrey	How the U.S. Can prepare to Live In China's 5G World	
16:00 ~ 16:15	Willy	Biometrics	
16:15 ~ 16:30	Jeff	AI. manipulators perform operation	
16:30 ~ 16:45	Charlie	AI in robotics	
16:45 ~ 17:00	Bob	AlphaGo Zero	
17:00 ~ 17:15	Toby	VR	
17:15 ~ 17:30	Jasur	Al-Khwarasmi: father of algebra	

Session S4: 18:30 to 20:30 Chair: Jeffrey Chen (陳子顥) Theme: Mixed			
Time	**Speaker**	**Title**	**Evaluation**
18:30 ~ 18:45	Kevin Wang	Electric car	
18:45 ~ 19:00	Ethan	Madame Curie	
19:00 ~ 19:15	Jason	Wind power	
19:15 ~ 19:30	Sarah/Morris	Einstein	
19:30 ~ 19:45	Albert	5G	
19:45 ~ 20:00	Chris	Convolutional Neural Network	
20:00 ~ 20:15	Hugo		
20:15 ~ 20:30	Leo		

Abstracts

Facial Recognition

Presenter: Zianda

Submission Type: Single Paper Review

The human face has sparked interest in various disciplines within the arts and sciences for centuries.This fascination of the human face may reflect the psychological significance of the face and the recognition of other faces. Cognitive psychologists, neuroscientists and developmental psychologists are interested in facial recognition due to evidence that faces are somehow perceived differently than other patterned objects, the ability is controlled by a distinct neural circuit, and that faces provide an early means of communication between infants and caretakers.Regardless of the wide-ranged and continued interest in the subject matter, it still remains unclear how facial recognition becomes specialized, and what neurological systems are involved in the development process (Nelson, 2001).

Nuclear power

Presenter: Chad

Submission Type: Single Paper Review

Nuclear power become more and more important , many country rely on nuclear power to generate electricity. People should realize the nuclear power and understand the advantage or disadvantage. I will discuss three main point. First is to introduce the nuclear power .Second, I will talk about nuclear power's application. Third, I will focus on the nuclear power disaster.

Hybrid Vehicle

Presenter: Ray

Submission Type: Single Paper Review

Nuclear power become more and more important , many country rely on nuclear power to generate electricity. People should realize the nuclear power and understand the advantage or disadvantage. I will discuss three main point. First is to introduce the nuclear power .Second, I will talk about nuclear power's application. Third, I will focus on the nuclear power disaster.

AlphaGo Zero

Presenter: Bob

Submission Type: Single Paper Review

I want to introduce how people create AlphaGo and what is this means. How can AlphaGo defeat human on chess for just used two days. From zero to infinity, by chessing himself. I also want to talk about can AlphaGo do something more than just it did on chessboard.

AR technic

Presenter: Eric

Submission Type: Single Paper Review

The applications and limitations of Augmented Reality

Human cloning

Presenter: Edward

Submission Type: Single Paper Review

Since Dolly sheep have been cloned success and to be born in 1996. Scientist have some ideas about Human Cloning. Human Cloning is a kind of technology obtain a genetically and copy by human not naturally produced. But it is widely believed that cloning is not respecting human rights. So this experiment has also been greatly hindered.

3D printing-bioprinting

Presenter: John

Submission Type: Single Paper Review

3D printing is evolving quickly from rapid prototyping to having wider industrial application, particularly for custom or unique parts. In the medical field, bioprinting could made a huge impact to it. In this talk, we will first discuss it on the medical field then we will discuss the effects that it will made to the society.

The drone

Presenter: Kevin Wang

Submission Type: Single Paper Review

With the progress of the times, a variety of technologies and new products have increased, and that the unmanned aerial vehicle (UAV), which is commonly known as a drone, is one of them. To discuss the future development of UAV, I will introduce various forms of UAVs and their applications. Then I will talk about the possible future development of different drones from various perspectives. Although today's UAV technology integrates many different fields of technology, it still fails to meet people's needs. It is proposed that UAV is a new field with great potential. This implies that drones still have a lot of space for development.

Convolutional Neural Network

Presenter: Chris

Submission Type: Single Paper Review

Convolutional neural network has huge impacts on computer vision and object detection. It enables to handle huge data and parameters. This technique is widely used in many fields, since it has excellent performance solving linear and nonlinear task efficiently. I will introduce the process of convolutional neural network and its application to recognizing handwritten numbers.

Wind power

Presenter: Jason

Submission Type: Single Paper Review

Einstein

Presenter: Sarah/Morris

Submission Type: Single Paper Review

Einstein is a famous scientist who has made many contributions in history and participated in the

study of atomic bombs in the Second World War. His findings have had a major impact on the current science. Many of the formulas are based on his previous research.

5G

Presenter: Albert

Submission Type: Single Paper Review

Madame Curie

Presenter: Ethan

Submission Type: Single Paper Review

Marie Curie (7 November 1867 - 4 July 1934) was a Polish and naturalized-French physicist and chemist. she was the first woman win a Nobel Prize and the first person and only woman to win twice, and in 1995 became the first woman to be entombed on her own merits in the PanthÃ©on in Paris.

VR

Presenter: Toby

Submission Type: Single Paper Review

As long as development of technology , there have many device will be created. Especially, the virtual reality was the key invention made the technology arise quickly. People could see the different world and had different feeling when wearing the virtual reality.

Space station

Presenter: Leo

Submission Type: Single Paper Review

How international space station(ISS) maintain in the earth orbit and transport people and cargo in the space. What is the purpose of international space station. How international space station can stay in space for years. The history of aviation from small biplaneã€①monoplane to jet and space shuttle .

Internet of vehicles

Presenter: Theon

Submission Type: Single Paper Review

This presentation includes a comprehensive framework of Internet of Vehicles (IoV) with emphasis on layered architecture, protocol stack, network model, challenges, and future aspects. The IoV includes five types of vehicular communications, namely, vehicle-to-vehicle, vehicle-to-roadside, vehicle-to-infrastructure of cellular networks, vehicle-to-personal devices, and vehicle-to-sensors. A five layered architecture of IoV is proposed considering functionalities and representations of each layer. A protocol stack for the layered architecture is structured considering management, operational, and security planes. A network model of IoV is proposed based on the three network elements, including cloud, connection, and client. The benefits of the design and development of IoV are highlighted by performing a qualitative comparison between IoV and vehicular ad hoc networks (VANETs). Finally, the challenges ahead for realizing IoV are discussed and future aspects

of IoV are envisioned.

How the U.S can prepare to live in China's 5G World

Presenter: Jeffrey

Submission Type: Single Paper Review

China’s first-mover advantage in deploying 5G networks capable of transforming national economies has major implications for the United States.

Biometrics

Presenter: Willy

Submission Type: Single Paper Review

Biometric introduction.

AI . Manipulators perform operation

Presenter: Jeff

Submission Type: Single Paper Review

Artificial intelligence is intelligence displayed by machines. In contrast with the natural intelligence displayed by human and other animals. In computer science, AI research is defined as the study of intelligent agents: any device that perceives its environment and takes actions the maximize its chance of success at some goal. Colloquially, the term "artificial intelligence" is applied when a machine mimics "cognitive" functions that humans associate with other human minds, such as learning and problem solving.

Stephen William Hawking

Presenter: Nora

Submission Type: Single Paper Review

Hawking's life contributed to the study of theoretical physics and was hailed as one of the most outstanding scientists of today. Although everyone felt that he was very unfortunate, his scientific achievements were obtained after he was sick. With his unyielding will, he defeated the disease, created a miracle, and proved that disability is not an obstacle to success. His love of life and his enthusiasm for scientific research are worth learning by the younger generation.

Electric car

Presenter: Kevin Wang

Submission Type: Single Paper Review

"Electric cars are powered by electricity, which as an energy source is cleaner and cheaper than oil. Even when the electricity comes from the dirtiest coal-dominated grid, electric vehicles (EVs) still produce less global warming pollution than their conventional counterparts, and with fewer tailpipe emissions (or none at all). So, to face our environmental problem. We need to make some change,Whether itâ€™s just starting with a simple car buying idea."

XXX

Presenter: Hugo

Submission Type: Single Paper Review

Facial Recognition

Presenter: Jasur

Submission Type: Single Paper Review

The human face has sparked interest in various disciplines within the arts and sciences for centuries.This fascination of the human face may reflect the psychological significance of the face and the recognition of other faces. Cognitive psychologists, neuroscientists and developmental psychologists are interested in facial recognition due to evidence that faces are somehow perceived differently than other patterned objects, the ability is controlled by a distinct neural circuit, and that faces provide an early means of communication between infants and caretakers.Regardless of the wide-ranged and continued interest in the subject matter, it still remains unclear how facial recognition becomes specialized, and what neurological systems are involved in the development process (Nelson, 2001).

Madame Marie Curie

Presenter: Wilson

Submission Type: Single Paper Review

Madame Marie Curie is the most greatest pioneer research on redioactivity. She born on November 7, 1867 in Warsaw, Poland. Marie discovered that there was something going on inside the atom that created the rays, she named this effect “radioactivity”. She discovered that uranium with ray intensity and the element thorium was also radioactive. She discovered polonium and radium too. In 1903, the Royal Swedish Academy of Sciences awarded Marie the Nobel Prize in physics.She was also awarded the Nobel prize in chemistry in 1911 for her work with radium.

Alfred Wegener

Presenter: Sakhile

Submission Type: Single Paper Review

How was the earth formed? What made the big continents to move thousand and thousand of miles apart? Why is the earth so restless? Why do earthquakes, tsunamis, landslides and volcanoes occur? We may have the answers to all of these questions as long as we can try and understand the earth structure.

Michael Faraday

Presenter: Alan

Submission Type: Single Paper Review

How the world become so convenient? The reason is that we found electricity. We use electricity in everything in our 24 hours, we cannot live without it. So I will introduce Faraday's experiment and how influence to our life in the later pages.

AI in robotics

Presenter: Charlie

Submission Type: Single Paper Review

Artificial intelligence (AI) and robotics are a powerful combination for automating tasks inside and outside of the factory setting. In recent years, AI has become an increasingly common presence in robotic solutions, introducing flexibility and learning capabilities in previously rigid applications.

The inventor of alternating current – Nikola Tesla

Presenter: Ian

Submission Type: Single Paper Review

Nikola Tesla was a Serbian-American inventor, electrical engineer, mechanical engineer, who is best known for his contributions to the design of the modern alternating current (AC) electricity supply system. Tesla wrote a number of books and articles for magazines and journals. Among his books are My inventions: The Autobiography of Nikola Tesla, compiled and edited by Ben Johnston; The Fantastic Inventions of Nikola Tesla, compiled and edited by David Hatcher Childress; and The Tesla Papers.

Elon Musk

Presenter: Andrew

Submission Type: Single Paper Review

It about intruduceing how Elon Musk found his company and what he decision what his company will do . He make many crazy big plan to his company . And how he achieve his plan. He successfully founded Spacex and PayPal and Tesla .He care about environment so he made lots of forward move.

Blaise Pascal

Presenter: Benjamin

Submission Type: Single Paper Review

Blaise Pascal is a very popular person. When we talk about him, we can easily think that he is an philosopher and also a scientist. We know that he did the triangle of Pascal in math and he did the Pascal's principle. In the presentation we focus on his life and his contribution to the world.

Steve Jobs

Presenter: Kevin Huang

Submission Type: Single Paper Review

Steve jobs founded the apple corporation.

Appendix: Talk Feedback

Session #: ___ Talk #: __ Presenter Name: _____ Presenter ID: _____

Talk Title: _____ Comments Wanted? □ YES □ NO

§	Item	Actual Points					Max Points
		0.5 (1)	1.5 (3)	2.5 (5)	3.5 (7)	4.5 (9)	
WRT	Abstract						5
WRT	View Graphs						5
CP	Content (Original, Appropriate)						5
CP	Presentation Flow and Logic						5
Time	[11 12 min]* Time:						10
GP	Grammar and Pronunciation						10
FC	No Stumbling						5
	Good Sentence Flow						
	Can be Heard Clearly						
	Make Eye Contact						
ADV	No Apologizing						5
	Natural Body Movement						
	Posture Erect						
	Friendly Sincere Tone						
	Avoid Fillers/Verbal Ticks						
	Reads the Audience						
-	Late Submission						-10%
						TOTAL:	**/50**

*Loss of 1 point for each 15s outside of range

§	Comments