

# IEEE WIE INTERNATIONAL LEADERSHIP SUMMIT 2023, AUCKLAND



## PROGRAM



DECEMBER  
**11-12**

From 8:30am to 5:30pm



**UNIVERSITY OF  
AUCKLAND**

New Zealand

**REGISTER NOW**





# DAY 1 MORNING



## **MIHI WHAKATAU**

8:30 AM - 8:45 AM

## **WELCOME**

*PROVOST PROF. VALERIE LINTON*

8:45 AM - 9:15 AM

## **FINDING YOUR VOICE**

*NITA PATEL*

9:15 AM - 10:00 AM

## **EMBRACING DIVERSITY AND INCLUSION IN KIWIRAIL INFRASTRUCTURE ENGINEERING**

*LYNNE MORTON*

10:00 AM - 10:30 AM

## **MORNING TEA**

10:30 AM - 11:00 AM

## **ENGINEERING THE NEXT GENERATION OF WOMEN LEADERS**

*BRYONY JAMES*

11:00 AM - 11:30 AM

## **WOMEN IN LEADERSHIP**

*TRACEY RYAN*

11:30 AM - 12:00 PM

## **EVOLUTION OF WOMEN IN SPORT MOVEMENT AND THE NEED FOR DIVERSITY AND INCLUSION**

*RACHEL FROGGART*

12:00 PM - 12:30 PM



# DAY 1 EVENING



## LUNCH

12:30 PM - 1:30 PM

## PARALLEL WORKSHOPS

*MAHSA MCCAULEY AND YING YANG & SNEH PATEL*

1:30 PM - 2:30 PM

## HOW CAN WE ATTRACT FEMALE STUDENTS TO STEM FIELDS?

*TAKAKO HASHIMOTO*

2:30 PM - 3:00 PM

## AFTERNOON TEA

3:00 PM - 3:30 PM

## EQUITY AND DIVERSITY IN ENGINEERING

*CATHERINE WATSON*

3:30 PM - 4:00 PM

## DESIGNING IMPACTFUL WIE PROGRAMS TO PROMOTE DIVERSITY AND INCLUSION

*CELIA SHAHNAZ*

4:00 PM - 4:30 PM

## PANEL DISCUSSION ON AUTO CONFIDENCE AND WOMEN IN LEADERSHIP POSITIONS

4:30 PM - 5:30 PM

## CONFERENCE RECEPTION

@ WYNYARD PAVILLION

6:30 PM - 10:00 PM





# DAY 2 MORNING



## **INTRODUCTION TO IEEE AND WIE**

8:30 AM - 8:40 AM

## **STEM WORKSHOP WELCOME**

*RENEE MATEPARAE & KELLY SMITH (BABCOCK)*

8:40 AM - 9:00 AM

## **SCIENCE ADVICE IN A CRISIS – SOME REFLECTIONS**

*JULIET GERRARD*

9:00 AM - 9:45 AM

## **DIVERSITY: WHAT IS HAPPENING WITH ELECTRIFICATION IN NZ AND HOW DO WE BUILD OUT THE WORKFORCE**

*ALISON ANDREW*

9:45 AM - 10:30 AM

## **MORNING TEA**

10:30 AM - 11:00 AM

## **EMBRACING A VULNERABLE APPROACH TO LEADERSHIP**

*KERRY EMM*

11:00 AM - 11:30 AM

## **DRIVING CHANGE: HOW DIVERSITY AND INNOVATION SHAPE THE FUTURE OF ROBOTICS**

*STEPHANY BERRIO PEREZ*

11:30 AM - 12:00 PM

## **DISRUPTING INEQUITIES: CREATING MEANINGFUL PATHWAYS AND THE POSITIVE RIPPLE EFFECTS ON PRODUCTIVITY AND CULTURE**

*CECILIA TUALA*

12:00 PM - 12:30 PM



# DAY 2 EVENING



## LUNCH

12:30 PM - 1:30 PM

### **BRIDGING THE DIGITAL DIVIDE: DIGITAL EQUITY AND INCLUSION FOR ALL!**

*JEEWIKA RANAWEERA*

1:30 PM - 2:15 PM

### **ENGINEERING AND ARCHITECTURE FOR EVERYONE**

*JOSIE FITZGERALD*

2:15 PM - 2:45 PM

### **FROM DIFFERENT TO BRILLIANT: THRIVING IN A MISMATCHED WORLD**

*JO ELLEN SCOTT*

2:45 PM - 3:15 PM

## AFTERNOON TEA

3:15 PM - 3:45 PM

### **PANEL DISCUSSION ON TRANSFORMING THE CULTURE OF ENGINEERING AND ROLE OF MALE ENGINEERS**

3:45 PM - 4:45 PM

### **CONFERENCE CONCLUSION & THANKS**

*DULSHA KULARTNA-ABEYWARDANA*

4:45 PM - 5:00 PM



DAY 2  
MORNING

# STEM Workshop

Little  
Engineers



Wonder  
Project



CENTRE FOR AUTOMATION  
AND ROBOTIC ENGINEERING SCIENCE



D E V O R A

SCRATCHPAD



IEEE WIE INTERNATIONAL  
LEADERSHIP SUMMIT

IEEE Women in Engineering  
Wie

# FINDING YOUR VOICE

*NITA PATEL*

*SR. DIRECTOR, ENGINEERING AT OTIS ELEVATOR CO., USA  
PRESIDENT IEEE COMPUTER SOCIETY*

Abstract: "Voice" means your unique, authentic, courageous self; that is, your personality, your values, and your skills, that represent who you are and what you stand for. This presentation will provide four (4) elements critical to finding your voice; thereby, enabling you to discover and to articulate your style clearly, courageously. With a few challenging but imminently doable steps you can be the leader sharing your ideas, presenting to executive leaders, or speaking at a conference. The four (4) concepts are unspectacular preparation, seeking understanding, courageous conversations, and deliberate practice.

# EMBRACING DIVERSITY AND INCLUSION IN KIWIRAIL INFRASTRUCTURE ENGINEERING

*LYNNE MORTON*

*GENERAL MANAGER ENGINEERING, KIWIRAIL, NEW ZEALAND*

Abstract: The Rail Infrastructure Engineering team sits at the heart of the Rail Infrastructure providing specialist Engineering and Design services to both internal and external customers. Five years ago, the Rail Infrastructure Engineering team embarked on a journey of growth and expansion, this resulted in significantly increasing the numbers of team members as well as increasing the depth and breadth of the capability and increasing the Engineering specialisations and services provision. Lynne's presentation will take you through that period of growth and change showing how it embraced diversity and inclusion and empowered women leaders. It will also focus on the challenges and measures taken to overcome those challenges and the key takeaways and lessons learnt that have led to the diverse inclusive team that is continuing to thrive and grow with a number of key women leading the way.

# ENGINEERING THE NEXT GENERATION OF WOMEN LEADERS – UNIVERSITY EDUCATION IN CHALLENGING TIMES

**BRYONY JAMES**

PROVOST, VICTORIA UNIVERSITY, NEW ZEALAND

Abstract: The university sector is facing a time of existential change around the globe as the echoes of the pandemic exacerbate and accelerate the financial challenges that, arguably, have been mounting for decades. How do universities seize this opportunity to re-imagine education for a profession such as Engineering? Students are demanding different learning opportunities and modalities. Employers are demanding different skills from graduates. The teaching-research nexus that lies at the heart of a university is under scrutiny as many countries re-assess the research, science and innovation landscape. How does the tertiary sector best equip women in the STEM subjects for satisfying careers and leadership opportunities? This talk will canvas these issues and suggest possible routes towards a more sustainable model - but, as yet, there are still more questions than answers.

## WOMEN IN LEADERSHIP

**TRACEY RYAN**

MANAGING DIRECTOR, AURECON, NEW ZEALAND

Abstract: Tracey is Aurecon's Managing Director for New Zealand, Chair for Infrastructure New Zealand, Co-Chair to The Construction Sector Accord's Steering Group, and Chair of the International Federation of Consulting Engineers (FIDIC) Sustainable Development Committee. She will talk about her career journey to leadership roles in the infrastructure sector.





# **EVOLUTION OF WOMEN IN SPORT MOVEMENT & THE NEED FOR DIVERSITY AND INCLUSION**

**RACHEL FROGGATT**

SPORT BUSINESS GROWTH & SOCIAL IMPACT SPECIALIST, NEW  
ZEALAND



## **PARALLEL WORKSHOP: "I AM REMARKABLE"**

**MAHSA MCCAULEY**

SENIOR LECTURER, AUCKLAND UNI. OF TECH., NEW ZEALAND

During this 60 minute workshop, you will learn the importance of self-promotion in your personal and professional life and be equipped with tools to develop this skill.

# PARALLEL WORKSHOP: "STRENGTHENING PATHWAYS FOR STUDENTS THROUGH SUCCESSFUL STEM ENGAGEMENT"

**YING YANG & SNEH PATEL**

STEM & WESTEM PROJECT MANAGERS AT TE HONONGA  
AKORANGA COMET

In this 60 minute workshop, STEM Alliance Aotearoa will share what successful STEM engagement looks like and how universities and industry can build outreach and engagement programmes to strengthen student pathways into STEM. Join us to learn how to identify and reach underrepresented groups, grow inclusive and engaging programmes, and measure your impact.

## HOW CAN WE ATTRACT FEMALE STUDENTS TO STEM FIELDS?

**TAKAKO HASHIMOTO**

VP AND PROF. AT CHIBA UNI. OF COMMERCE, JAPAN AND IEEE  
R10 DIRECTOR-ELECT (2023-24)

Abstract: In recent years, efforts have been made to engage more young women in STEM (science, technology, engineering, and mathematics) fields, but progress has been limited. In particular, women's advancement in fields such as computer science, mathematics, and engineering has been slow. This talk will discuss the factors that discourage female students from entering STEM fields and what needs to be done to attract female students to STEM fields and improve a gender-equal academic environment.

# EQUITY AND DIVERSITY IN ENGINEERING

**CATHERINE WATSON**

ASSOC. DEAN OF EQUITY AND DIVERSITY, FAC. OF ENG., UNI.  
OF AUCKLAND, NEW ZEALAND

Abstract: Equity and diversity are very important to engineering, both in terms of who does engineering, and how engineering is applied. In this talk I will reflect the changes to the profession in the last 40 years, including anecdotes from when I was an Electrical and Electronic Engineering student to now, when I am the Associate Dean of Equity and Diversity in the Faculty of Engineering, University of Auckland. I will discuss the existing and future challenges to ensuring the engineering workforce is diverse and equitable. I will also talk about the need to use engineering to enable an equitable society. I will use machine learning as a case study, and look at the impact of bias. I will pull on examples from speech technology which is the area I have researched in for over 30 years.

## DESIGNING IMPACTFUL WIE PROGRAMS TO PROMOTE DIVERSITY AND INCLUSION

**CELIA SHAHNAZ**

CHAIR IEEE WIE AND PROFESSOR BANGLADESH UNI. OF ENG.  
AND TECH

Abstract: This session aims to share impactful program ideas for enhancing the careers of WIE members across diverse IEEE regions while emphasizing IEEE WIE's commitment to implementing its pledge across various OUs. The focus is on engaging volunteers and members in program design and implementation to nurture their potential, ensure retention and growth, and enhance their overall experience. These priority programs include innovative approaches to Affinity Group development, engagement in climate change and sustainability, collaboration with IEEE technical Societies, and more. It encourages problem-solving, celebrates accomplishments regardless of region or ethnicity, and promotes diversity and collaboration in STEM fields. Through networking and cross-border idea exchange, IEEE WIE strengthens its volunteer-driven programs, preparing members for leadership roles in the future.

# SCIENCE ADVICE IN A CRISIS – SOME REFLECTIONS

**DAME JULIET GERRARD**

PRIME MINISTER'S CHIEF SCIENCE ADVISOR, NEW ZEALAND

Abstract: In this talk I will highlight the work of scientists and science advisors during three crises in Aotearoa New Zealand, reflecting in particular on the role of women in leadership roles during each of these events.

## EMBRACING A VULNERABLE APPROACH TO LEADERSHIP

**KERRY EMM**

REGIONAL VICE PRESIDENT, ENTRUST SOLUTIONS GROUP, USA

Abstract: In today's dynamic and interconnected world, leadership is evolving beyond traditional notions of authority and control. Embracing vulnerability in leadership has emerged as a transformative approach that fosters trust, connection, and innovation within organizations. By acknowledging one's imperfections, fears, and uncertainties, leaders can create a more inclusive and empathic work environment, leading to increased employee engagement and organizational successes.

## DRIVING CHANGE: HOW DIVERSITY AND INNOVATION SHAPE THE FUTURE OF ROBOTICS

**STEPHANY BERRIO PEREZ**

LECTURER, THE AUSTRALIAN CENTRE FOR FIELD ROBOTICS,  
UNI OF SYDNEY, AUSTRALIA

Abstract: In an era where robotics are set to revolutionise the way we live, work, and interact with our environments, diversity in thought and expertise is more critical than ever. This talk will explore the intersection of cutting-edge research in Robotics, the value of diverse perspectives, and the importance of female leadership in STEM. Drawing from my own experiences, I will delve into current trends and breakthroughs in autonomous driving and robotics.



# **DISRUPTING INEQUITIES: CREATING MEANINGFUL PATHWAYS AND THE POSITIVE RIPPLE EFFECTS ON PRODUCTIVITY AND CULTURE**

**CECILIA TUALA**

CORPORATE SOCIAL OUTCOMES PROGRAMME MANAGER –  
DOWNER, NEW ZEALAND &  
BOARD MEMBER, AUCKLAND MAORI PACIFIC TRADES  
INITIATIVE



## **BRIDGING THE DIGITAL DIVIDE: DIGITAL EQUITY AND INCLUSION FOR ALL!**

**JEEWIKA RANAWEERA**

VICE CHAIR, IEEE FUTURE DIRECTIONS, USA

Abstract: Over a billion girls under age 18, are poised to become the largest generation of leaders, entrepreneurs, and change-makers the world has ever seen! However, there's a significant knowledge gap on the digital realities replicating gender inequality. By 2050, ~65% of children will have jobs that do not yet exist. Without increased digital adoption, girls will have fewer job opportunities and will face additional barriers to workforce participation. Future tech trends for a digital world transformed through digital twins, AR, VR, AI, and ML will have a major impact on the labor market. This talk will review the factors needed to close the digital gender gap, address the inequity and exclusion that takes place, and discuss actions needed to bring a gender-balanced digital revolution for all.



# ENGINEERING AND ARCHITECTURE FOR EVERYONE

**JOSIE FITZGERALD**

DIVERSITY AGENDA & NZ LAND AND WATER LEADER AT AURECON,  
NEW ZEALAND

Abstract: The Diversity Agenda, the award-winning movement is committed to helping the architecture and engineering consulting industry become more diverse, equitable and inclusive. Hear how what started as a discussion in a boardroom has become one of the biggest industry coalitions of its kind and how The Diversity Agenda is applying an industry-wide approach to tackle some of the biggest DEI challenges we face in the architecture and engineering consulting industry today.



## FROM DIFFERENT TO BRILLIANT: THRIVING IN A MISMATCHED WORLD

**JO ELLEN SCOTT**

SENIOR TECHNICAL LEADER, ENTRUST SOLUTIONS GROUP, USA

Abstract: Every person is unique. Some differences are visible – like height or eye color. Other differences are not so obvious – like musical ability or innate curiosity. Person-to-person differences can be seen in our physical bodies and also in our behaviors. Often these differences are the result of both nature and nurture - our unique genetics plus the environment in which we were raised and currently live. Interestingly, science has discovered that some differences can in some circumstances also come with hidden ‘superpowers.’ This presentation will address neurodiversity and the differences in us all, the potential hidden strengths that may come with differences, and how to create a niche where you (or someone else) can shine.