



# Venus International Foundation Centre for Women Development



## 9<sup>th</sup> ANNUAL WOMEN'S MEET – AWM 2024

2nd March, 2024, Chennai, India

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# **AWM 2024**

## **9th Annual Women's Meet**

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2 March 2024, Chennai, India

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# **CONFERENCE PROCEEDINGS**

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## Acknowledgment

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With great pleasure, we welcome you all to the 9th Annual Women's Meet – AWM 2024 hosted by the Centre for Women Development (CWD), Venus International Foundation (VIF), Chennai, India on 2 March 2024. This scientific conference is organized with the theme – “To Engage, Inspire and Energize Women Researchers” and how to plan a journey forward to have a voice for women professionals and female intellectualism. The conference focuses on recent research, developments, and challenges in the field of Agricultural Sciences, Engineering, Health and Medical Sciences, Humanities and Social Sciences, Law, Management, Science, and Veterinary and Animal Sciences.

The AWM 2024 conference provides a great opportunity for women to focus on meeting the changing requirements of science and technology and to foster collaborative relationships. The conference allows all participants to celebrate accomplishments, extend peer networks, and jointly explore future research directions. Further, the conference offers enlightening keynote lectures by renowned experts, followed by several parallel sessions. The conference received an overwhelming response from women researchers, which is leading to high-quality presentations and discussions. Finally, the conference team wishes every participant to have a productive and enjoyable time at this special conference.

Team, AWM 2024

## Message from General Chair – AWM 2024

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The Annual Women's Meet is now a well-established platform for women researchers and the key aim remains the opportunity to share ideas and meet the people to exchange new knowledge and innovation to stimulate fresh insights on different levels.

The Ninth Women's Meet – AWM 2024, in particular, was a challenging exercise as the new format (Scientific Conference) allowed us to structure sessions differently, facilitating participation in innovative ways. The scope of papers will ensure an interesting day and the subjects covered illustrate the wide range of topics that fall into this important and ever-growing area of research.

I thank the Organizing Committee, Keynote Speakers, and Reviewers for their enthusiastic support. We would like to thank all the authors for submitting their work to AWM 2024 and for giving us the opportunity to assemble a high-quality program. We are happy to publish the proceedings of AWM 2024. I hope that AWM 2024 will be successful and enjoyable to all participants.

A handwritten signature in green ink that reads "R. Sathish Kumar". The signature is written in a cursive, flowing style.

R.SATHISHKUMAR

General Chair – AWM 2024

## Organizing Committee – AWM 2024

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## AWM 2024 Conference Schedule

Programme Venue: Green Park Hotel, Chennai

8:30 am onwards	Registration
<b>INAUGURAL SESSION</b>	
9.30 am	Welcome Address
9.35 am	Lighting of the Lamp
9.45 am	Thamiz Thai Vaazthu
9.50 am	Presidential Address by General Chair

<b>KEYNOTE SESSION – I</b> Venue: Vauhini Hall (10:00 –11:00 am)	
Speaker	Title of Talk
Dr. Nancy Lombard, Glasgow Caledonian University, Scotland	The Personal is still political: Exploring a Career of Violence against Women Research through the Intersections of Gender, Class and Age
Dr. Mathilde Simon Mahe, École Normale Supérieure, France	The Cult of Venus in Republican (or classical) Rome
Networking and Refreshment Break (11:00 –11:15 am)	

<b>PARALLEL TRACKS</b> (11:15 –1:00 pm)	
Engineering – I	Venue: Bharani Hall
Science and Humanities	Venue: Board Room
Management	Venue: Vauhini Hall

<b>AWARDS CEREMONY SESSION – I</b> Venue: Vauhini Hall (1:00 –1:30 pm)	
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## AWM 2024 Conference Schedule

Lunch and Networking Break (12:30 to 2:30 pm)

### PARALLEL TRACKS

(1:30 – 2:30 pm)

Engineering – II	Venue: Bharani Hall
Agriculture, Law and Veterinary Sci.	Venue: Board Room
Medical Sciences	Venue: Vauhini Hall

### KEYNOTE SESSION – II

Venue: Vauhini Hall (2:30 – 4:30 pm)

Speaker	Title of Talk
Dr. Malika Meghjani, Singapore University of Technology & Design	Heterogeneous Multi-Robot Systems
Dr. Hie Lim Kim, Nanyang Technological University, Singapore	Environmental Changes and their impact on Genome Evolution
Dr. Althuri Avanthi, Indian Institute of Technology Hyderabad, India	Bioprocessing for Biochemicals, Biomaterials and Biofuels: Viable & Sustainable Advances to bio-transform Waste into Resource
Dr. Woo Fong Yeong Brigitte, National University of Singapore	Advancing Nursing Practice: From Research to Policy and Practice

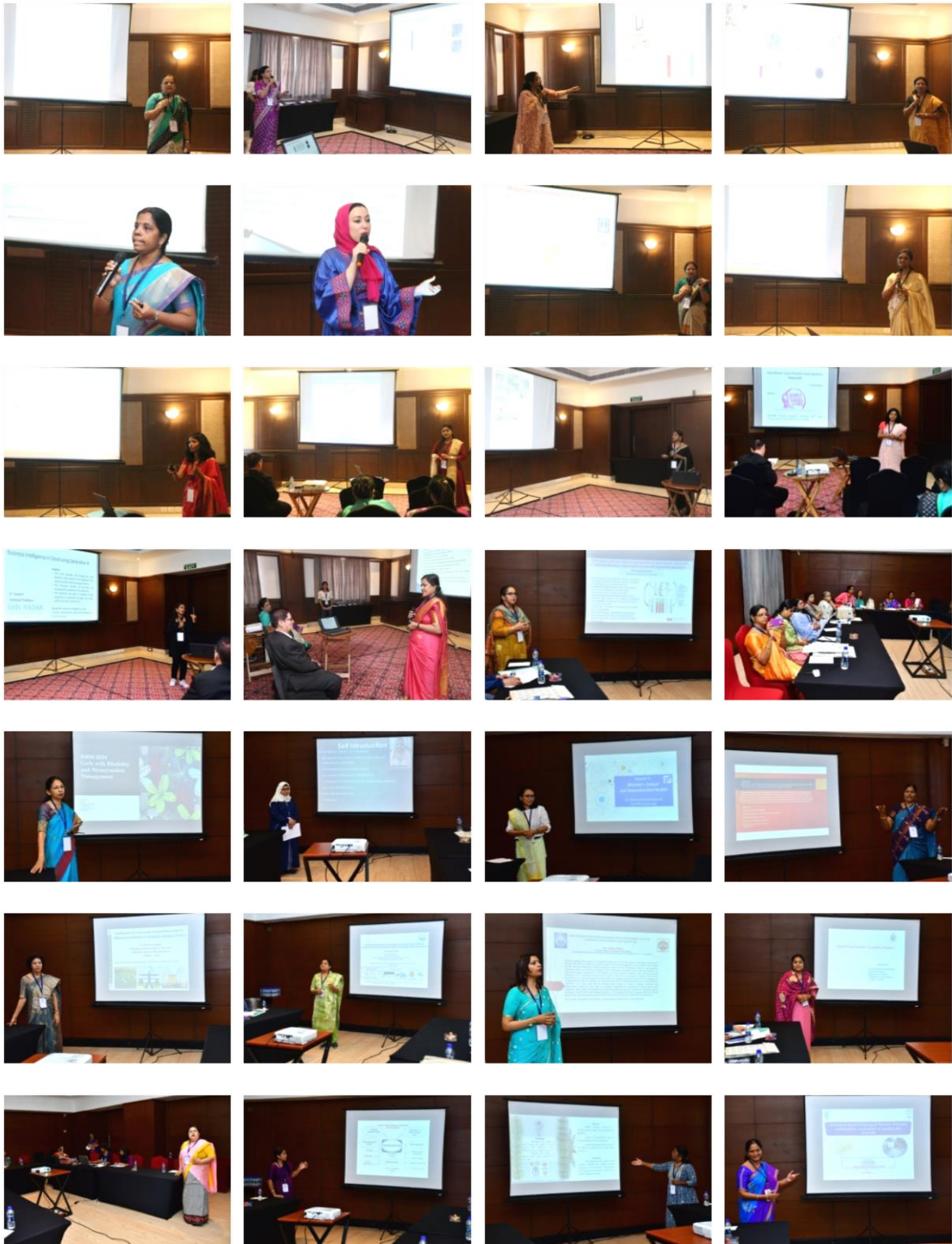
### AWARDS CEREMONY SESSION – II

Venue: Vauhini Hall (4:30 – 5:00 pm)

Valedictory, Networking & Refreshment (5:00 – 5:30 pm)



# Glimpses



## Keynote Speaker 1

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Dr. Nancy Lombard, Glasgow Caledonian University, Scotland

**Title: The personal is still political: Exploring a career of violence against women research through the intersections of gender, class and age**

**Abstract:** Women are disproportionately affected by domestic abuse (a cause and consequence of gender inequality) and these experiences of violence are compounded by multiple intersecting identities, which impact how women can access (and receive) help and support. Eradicating violence against women requires transformative action and sustained change.

Scotland promotes gender equality as a means to challenge and eradicate violence. In this talk I highlight how my own research consolidated the gendered definition adopted by the Scottish Government. I reflect upon how my findings informed the need for valuable education and preventive work and how my research continues to prioritize the voices of victim-survivors.

In examining my own journey I illustrate how my research has contributed to the ways in which we understand and frame men's violence against women.

## Keynote Speaker 2

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Dr. Mathilde Simon Mahe, École Normale Supérieure, France

### **Title: The Cult of Venus in Republican (or classical) Rome**

**Abstract:** Venus is an archaic Roman goddess whose cult was evidenced very early in Italy; she was later assimilated to the Greek Aphrodite and became in this aspect the goddess of Beauty. Her significance in the Roman civilization lies in her role in the legend concerning the foundation of the city of Rome: during his trip from Troy until Italy, Aeneas, who was supposed to be the son of the goddess, took a statue of Venus in Sicily and brought it with him until the term of his journey. In Rome, the first temple of Venus was erected in 295 B.C., but the most famous was dedicated to Venus Erycina during the war against the Carthaginians. We can notice that two feasts in the religious year celebrated the goddess: we will look at the nature and the meaning of those celebrations in which Venus is usually associated with Jupiter. Thereafter, we will see how Venus became the goddess and also the name for Love, especially in the Augustan poetry. Finally, the use of this religious figure in the political area, until the first century A.D, will be presented.

## Keynote Speaker 3



Dr. Malika Meghjani, Singapore University of Technology and Design, Singapore

### **Title: Heterogeneous Multi-Robot Systems**

**Abstract:** Heterogeneous multi-robot systems are proven to be robust and effective for real-world applications requiring multiple robot cooperation. In this talk, I will present some of the applications for which we use heterogeneous multi-robot systems. The heterogeneity in the proposed applications is showcased in terms of the physical differences in the robots being deployed in different domains as well as robots with different behavioral differences in the same domain. The applications include, (a) dynamic marine environment monitoring with heterogeneous robots in air, on water surface and underwater domains; (b) autonomous mobility-on-demand system with first-last mile vehicles and self-driving cars; (c) searching for moving and evading targets using learning-based approach for heterogeneity in behavioral differences and (d) urban reconnaissance for human-robot collaboration. Lastly, I will also highlight some of the challenges and potential solutions for deploying these field robots in the wild.

## Keynote Speaker 4

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Dr. Hie Lim Kim, Nanyang Technological University, Singapore

### **Title: Environmental Changes and their impact on Genome Evolution**

**Abstract:** This presentation explores the intricate relationship between environmental changes and genome evolution, with a focus on understanding the forces shaping genetic variations. Drawing insights from our extensive research, I will shed light on prehistoric human migration history driven by climate change in Africa and rapid sea-level rise in Southeast Asia. The discussion extends to genome adaptation in diverse South American environments, unraveling the dynamic interplay between genetic changes as humans migrated and settled, even in extreme climates like frigid regions. Additionally, our studies encompass genome adaptation against pathogens such as malaria, providing insights into evolutionary responses to selective pressures.

## Keynote Speaker 5

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Dr. Woo Fong Yeong Brigitte, National University of Singapore, Singapore

### **Title: Advancing Nursing Practice: From Research to Policy and Practice**

**Abstract:** With population ageing, expansion of the advanced practice nursing workforce to enhance workforce capability is increasingly popular with health policymakers. Health policymakers are encouraging the implementation and expansion of advanced practice nursing roles to align with the national ‘Beyond Healthcare’ initiatives – ‘Beyond Hospital to Community’, ‘Move Beyond Quality to Value’ and ‘Move Beyond Healthcare to Health’.

In this talk, Dr Woo presents her recent research work which is summarised by the acronym, ‘AIM’, which represents ‘Advanced practice nursing workforce development’, ‘Implementation and evaluation of advanced practice nursing roles’, and ‘Motivate and augment the nursing workforce’. She will also share insights from her research endeavours and evaluations, which have been instrumental in shaping healthcare policy and improving clinical practice.

## Keynote Speaker 6

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Dr. Althuri Avanthi, Indian Institute of Technology Hyderabad, India

### **Title: Bioprocessing for Biochemicals, Biomaterials and Biofuels: Viable & Sustainable Advances to bio-transform Waste into Resource**

**Abstract:** Unravelling the opportunities to valorize organic wastes is the key towards developing sustainable alternatives to synthetic fuels, polymers and chemicals and consequently reduce dependency on non-renewable fossil reserves. Our goal is to recover the biomolecules from lignocellulosic wastes/ agricultural residues/ organic fraction of municipal solid waste and process the tapped parent molecules to critical bioproducts that can cater solutions to burning global concerns. This research is ultimately intended to meet the United Nations-Sustainable Development Goals (SDGs) particularly SDG3 (Good health and well-being), SDG9 (Industry innovation and infrastructure), SDG12 (Responsible consumption and production), and SDG13 (Climate action). Bioethanol is a biobased fuel that has evidently gained positive response from both farmers & industrialists' perspective due to its doability, scalability and commercial feasibility. National policy on biofuels, GoI mandates bioethanol production & blending with gasoline to curb the burgeoning demand for motor fuel and dependency on fuel imports. This study reveals eco-friendly strategies to produce bioethanol from organic wastes using biocatalysts & microbial cell factories. Further, a glimpse into production of other bioproducts such as lignin-based hydrogels for food packaging applications; one-pot production of lactic acid to synthesize Polylactic acid (PLA); and a scheme to thermal induced generation of bio-crude is delivered to divulge the promising sustainable outcome of employing greener raw materials for cleaner production.

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