



# 14<sup>th</sup> National WOMEN'S Science Congress

Ennobling motherhood and enabling women for leadership in science

**16 & 17<sup>th</sup> Dec 2023**

Tumkur University, Tumakuru

**Focal Theme : Science for Society**

Organised  
by



**Matru Vedike (Women Scientist's Forum)**

**Swadeshi Vijnana Andolana - Karnataka**

**(Karnataka Unit of Vijnana Bharati)**

"Swadeshi Sadan",

Guru Narayana Vidya Vihar,

Hebbal, Bengaluru-560 024

[www.svak.org](http://www.svak.org)

In Association  
with



**Tumkur University**

**Tumakuru**

[www.tumkuruniversity.ac.in](http://www.tumkuruniversity.ac.in)

Supported by



विज्ञान एवं प्रौद्योगिकी विभाग

DEPARTMENT OF

**SCIENCE & TECHNOLOGY**



भारत का विद्युत् चक्र  
CSIR  
The Inspiration Begins of India



Sponsored by



# 14<sup>th</sup> National Women's Science Congress

Ennobling motherhood and enabling women for leadership in science

16 & 17<sup>th</sup> December 2023 | Tumkur University, Tumakuru

ರಾಷ್ಟ್ರೀಯ ಮಹಿಳಾ ವಿಜ್ಞಾನ ಸಮ್ಮೇಳನ  
राष्ट्रीय महिला विज्ञान सम्मेलन  
Rashtriya Mahila Vijnana Sammelana

"Ask the right questions and nature  
will open the doors to her secrets"



Nobel Laureate  
Bharath Rathna Awardee  
Dr Sir C V Raman  
1888-1970

"Never to let one's self be beaten  
down by Persons or by events"



Nobel Laureate  
Madam Marie Curie  
1867-1934

"Every man who has become great  
owes his achievement to  
incessant toil"



Bharat Rathna  
awardee  
Dr. Sir M. Visvesvaraya

1861-1962

**VIJNANA SAMAGRATHA (Holistic approach to Science)** The holistic approach for the promotion of physical & material sciences, socio-cultural sciences and psycho-spiritual sciences is fostered by **Swadeshi Vijnana Andolana-Karnataka (SVAK)** in all its activities.

The **National Women's Science Congress** is being designed to bring **Women Scientists** to the forefront of Science & Technology in various domains. **Matru Vedike of SVAK** intends to bring many women scientists working in the areas of Science, Engineering and Technology on a single platform during the **National Women's Science Congress**.

The **Matru Vedike** derives great pride in acknowledging the immense contributions made by **Vedic Rishikas of Ancient Bharat** in the likes of **Maitreyi, Gargi, Katyayani** and many others. Similarly stellar achievements of Modern day women Scientists like **Madam Marie Curie** and her daughter **Irene Curie**, Padmashree Awardee **Janaki Ammal** and **Shakunthala Devi** continues to inspire generations of Women Scientists.

The **National Women's Science Congress** proposes to instill a sense of pride, confidence and camaraderie among young women scientists by bringing them on to a single platform.

**Matru Vedike** of **Swadeshi Vijnana Andolana- Karnataka** in association with **Tumkur University** is organising the **14th National Women's Science Congress**, inviting scientific papers from various fields of science.

## Swadeshi Vijnana Andolana – Karnataka (SVAK)

**Swadeshi Vijnana Andolana – Karnataka (SVAK)** is an organisation promoting not only modern science but also our own Indian traditional system of medicine, Indian art forms, culture and literature. The **SVAK** emphasises manifestation of "Swadeshi" ethos in our scientific pursuit.

**SVAK** was formed by a group of innovative thinkers and scientists lead by **Prof. K. I. Vasu**, renowned scientist from IISc in the **year 2004**. SVAK today has 25 active district units with 1300 Life Members in Karnataka. Eminent Scientists, academicians, policy makers and social workers are the torch bearers of this organisation.

**SVAK** envisions to have the essence of both science and spirituality to go hand in hand, so that the technology is made available in the rural area for social empowerment and rural development for the benefit of the Society at large. To achieve this object SVAK has partnered with many Universities, R&D organizations and other institutions.

**Swadeshi Vijnana Andolana- Karnataka** endeavours the promotion and dissemination of science in Kannada by conducting annual **Kannada Vijnana Sammelan** as to commemorate the birth anniversary of **Bharath Rathna Awardee Dr. Sir M. Visvesvaraya** and promotion of science among women scientists by organising annual **National Women's Science Congress** to commemorate the birth anniversary of **Bharath Rathna Awardee & Nobel Laureate Sir C. V. Raman** and **Nobel Laureate Madam Marie Curie**



## Tumkur University

Tumkur University, established in the year 2004, has gained significance as one of the young universities in the country and has been recognized as an institution of higher learning on par with high profile national institutions. It is a State University, established to cater the educational needs of Tumakuru district where the majority of students hail from the rural background.

Within a short span of years, the University has been successful in being recognized as an Institute of National Eminence by the UGC, besides being recognized under section 12 (B) of the UGC Act 1956 and also successfully gaining 'B+' grade by the NAAC accreditation.

Recently, the university has been rated as a 'Three Star' institution under the Karnataka State Universities Rating Framework (KSURF) released by the Karnataka State Higher Education Council, Bengaluru.

The University has had significant academic collaborations with several organizations and institutions of national importance including the Institute for Social and Economic Change, Bangalore; Tata Institute of Social Sciences, Mumbai; Intel, India; University of Rouen, France, National Law School of India University, Bangalore; and Mangalore University.

The gleaming history of the University owes its glory also to eminent scientists, Nobel Laureates, Spiritual Leaders including the 14th Dalai Lama who has visited the University. Students and faculty have been immensely benefited by their interaction with scientists like Dr. APJ Abdul Kalam and several other thinkers and educationists

## NATIONAL WOMEN'S SCIENCE CONGRESS

The **Matru Veidke of Swadeshi Vijnana Andolana-Karnataka** has been organising National Women's Science Congress since 2008, commemorating the birth anniversary of Bharatratna Awardee & Nobel Laureate **Sir C V Raman** and renowned scientist & Nobel laureate **Madam Marie Curie**, on 7th November.

**Swadeshi Vijnana Adolana - Karnataka** presents the prestigious **Sir C V Raman Mahila Vijnana Puraskara** to an outstanding woman scientist from India in the field of Physical, Mathematical & Biological Sciences.

The Prestigious **Madam Marie Curie Mahila Vijnana Puraskara** is being awarded to an outstanding woman scientist from other fields of Science excluding the above.

### Former recipients of Madam Marie Curie Mahila Vijnana Puraskara:

- **Dr Vijayalakshmi Ravindranath**, Former Director, NBRC
- **Dr G V Satyavathi**, Former DG-ICMR
- **Dr B Meena Kumari**, Dy. DDG-ICAR
- **Dr Vaidehi Ganesan**, Former Scientist, IGCAR
- **Dr Tessy Thomas**, Project Director, AGNI Missiles, DRDO
- **Prof H S Savithri**, Biochemistry, IISc
- **Dr Lakshmi Kantam**, Former Director CSIR-IICT, Hyderabad
- **Ms J Manjula**, first women DG(E&CS) DRDO
- **Dr Sowmya Swaminathan**, Former DG, ICMR
- **Prof Shashikala Wanjari**, VC, SNDTWU, Mumbai
- **Dr V R Lalithambika**, Director, Directorate of Human Space flight Programme at ISRO
- **Smt Mutthaiah Vanitha**, Project Director, Chandrayan-2 ISRO, Bengaluru
- **Prof Sharada Srinivasan**, Prof. NIAS, Bengaluru

### Former recipients of Sir C V Raman Mahila Vijnana Puraskara:

- **Prof Sujatha Ramadorai**, TIFR & Member, NKC
- **Prof Rohini Godbole**, Centre for High Energy Physics, IISc
- **Dr N Valarmathi**, Project Director RISAT, ISRO
- **Prof Riddhi Shaw**, JNU, New Delhi
- **Prof Shobhana Narasimhan**, JNCASR
- **Prof Shrubabati Goswami**, P R L, Ahmedabad
- **Prof Anuradha Mukhopadhyaya**, VC, DHWU, West Bengal
- **Dr N Kalaiselvi**, Director, CSIR- CECRI, Karaikudi
- **Mrs Anandi Ramalingam**, Director (Marketing), BEL, Bengaluru

2008, BLDEA's, SBA & KCPSC, Vijayapura

1

2009, AIISH, Mysore

2

2010, Davangere Univ.

3

2011, MSRIT, Bengaluru

4

2012, HKES-BVB, Bidar

5

2013, TSS-LVD, Raichur

6

2014, AKWU, Vijayapura

7

2015, Veterinary College Bengaluru

8

2016, RLJIT, Doddaballapura

9

2017, RCASC, Bengaluru

10

2018, JSSCW, Mysore

11

2019, SBRRMFC, Mysore

12

2021 NMKRV, Bengaluru

13



# 14<sup>th</sup> National Women's Science Congress

16 & 17<sup>th</sup> December 2023

## Focal Theme

**Science for Society** has been considered as the Focal Theme for the 14<sup>th</sup> National Women's Science Congress in view of the vagaries of Global Warming, Climate Change and other related Environmental issues bothering the man kind.

## Themes:

- |                    |   |
|--------------------|---|
| 1. Paanineeyam     | : Ashtadhyayi, Linguistic Sciences & Humanities   |
| 2. Patanjaleeyam   | : Ashtanga Yoga, Psycho-spiritual, Philosophical, Physical Education & Psychology           |
| 3. Bharateeyam     | : Natyasastra, Socio-cultural, Arts & Music   |
| 4. Kautilyeeyam    | : Economics, Sociology, Political Sciences, Social Work & Management Sciences               |
| 5. Dhanvantareeyam | : Health, Modern Medicine, Ayurveda, Siddha, Unani & Indian Systems of Medicine             |
| 6. Parashareeyam   | : Agriculture, Sericulture, Horticulture, Forestry, Veterinary, Animal & Fisheries Sciences |
| 7. Vasundareeyam   | : Earth Sciences, Environmental Sciences, Cosmology & Ecology                               |
| 8. Nagarjuneeyam   | : Chemical, Biological & Material Sciences  |
| 9. Bhaskareeyam    | : Physical, Mathematical & Astro - Physical Sciences  |
| 10. Bharadvajeeyam | : Civil, Mechanical, Aerospace & Transportation Sciences                                    |
| 11. J C Boseeyam   | : Electronics, Electrical, Green Energy & Communication Sciences                            |
| 12. Varahamihiram  | : Brihadsamhitha, IT, BT, NT, FT & Frontier Sciences.                                       |

## Abstract

- The abstract of the paper, not exceeding one page - A4 size, only in English (Times New Roman, font size - 12) should be sent by e-mail to [nwsc23tut@gmail.com](mailto:nwsc23tut@gmail.com). The Registration Form along with Registration Fees should be sent on or before **05<sup>th</sup> Dec 2023**.

## Full text

- Full text of the paper, if in English, use Times New Roman Script of font size - 12. If paper is in Kannada use Baraha or Nudi script, of font size - 14. If paper is in Sanskrit use Devanagari script of font size-14. Full text of paper with double line spacing, not exceeding 8 pages, should be sent by e-mail to [nwsc23tut@gmail.com](mailto:nwsc23tut@gmail.com) on or before **10<sup>th</sup> Dec 2023**.

## Instructions

- Please mention the **Name of Theme** and the title of your **Abstract**, name of author & co-author/s, complete address along with pin code, e-mail Id and mobile / phone number.
- Your abstract should be only in English, not exceeding one page of A4 size.
- Printed abstract sent with registration form, should also be accompanied with the soft copy (MS-Word format).
- Use PPT slides for presentation of your paper. Display of full text will not be permitted. Please submit your PPT by e-mail : [nwsc23tut@gmail.com](mailto:nwsc23tut@gmail.com) or in a pen drive at the registration counter for better coordination.
- All abstracts will be printed in the Souvenir. However only those papers, complete in all respects and presented at the Sammelana will be published in the Proceedings **Lilavati-14 having ISSN Number**, after editorial review.

## Award

- The best paper in each of the above 12 Themes would be considered for presenting **Best Paper** and **Young Scientist Award**, provided the full text of the paper has been submitted in time and the paper has been presented by the women scientists in the conference.
- The decision of the jury panel consisting of session chairperson, co-chairperson and experts would be final.

## Who all can Participate

- Scientists, Teachers, Lecturers, Research scholars, UG/PG Students, NRIs and others.
- Only registered delegates are allowed to present their papers in the **National Women's Science Congress**.

## Important Dates

Last date for submission of Abstract	05 Dec 2023
Last date for submission of Full text of paper	10 Dec 2023
Last date for Registration for Sammelana	10 Dec 2023

## Registration Fee

General Delegate	₹ 1500/-
SVAK Members / Research Scholars / Student/ Tumkur University Faculty & Group Registration	₹ 1000/-
Spot and Late Registration	₹ 1750/-

## Account Details for Bank Transfer

Name of the Bank	Union Bank of India
Account Name	Swadeshi Vijnana Andolana - Karnataka
Bank A/c No.	520101236299987
Bank Branch	Hebbal-Ganganagar, Bengaluru
IFSC Code	UBIN0920215

You may please  
Scan QR Code  
for  
online payment



- Registration fee may be sent by DD drawn in favour of **Swadeshi Vijnana Andolana-Karnataka** payable at Bengaluru.
- Online Payment details should be sent by e-mail to : [nwsc23tut@gmail.com](mailto:nwsc23tut@gmail.com)

## Organising Committee

### Founder



**Prof K I Vasu**  
Former Director, CSIR-CECRI  
Former Prof. IISc, Bengaluru

### Vice Chancellor



**Prof M Venkateshwaralu**  
Tumkur University  
Tumakuru

### President



**Capt Ganesh Karnik**  
President, SVAK  
Former MLC, GOK

### — Vice Presidents —



**Dr C Renuka Prasad**  
Working President, SVAK  
Former VC, KVAFSU, Bidar



**Dr V Shubha**  
Vice President, SVAK  
Former Distinguished Scientist, CSIR

### Chairperson



**Dr Y S Gayathri**  
Chairperson  
Matru Vedike



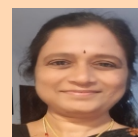
**Smt Nahida Zam Zam, KAS**  
Registrar,  
Tumkur University



**Smt Ambika Hulinaykar**  
Sridevi Charitable Trust  
Tumakuru



**Dr Nagarathna B**  
Vice Chairperson,  
Matru Vedike



**Dr Kavitha B**  
Vice Chairperson,  
Matru Vedike



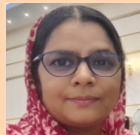
**Dr Kamala H**  
Joint Secretary  
Matru Vedike

### Vice Chairpersons

### Convenors



**Prof. Shalini B.R.**  
Department of Botany  
Tumkur University



**Dr Aisha Siddhika**  
Asso. Prof. Dept of Chemistry  
GFC, Tumakuru



**Dr. Geeta Vasant**  
Department of Kannada,  
Tumkur University



**Dr. Jyothi**  
Department of English,  
Tumkur University



**Dr. Mangala Gowri**  
Department of Physics  
Tumkur University



**Dr. Anasuya K V**  
Dept of Chemistry  
GFC, Tumakuru

### Coordinators

**Sri Ramesha H**

General Secretary, SVAK

**Dr Niranjaprabhu T**, Head, Chemistry, RUAS, Bengaluru

**Dr B T Sampath Kumar**, Director, PMEB, Tumkur University

**Dr K G Parashuram**, Prof & Chemistry, Dept of Social Work, Tumkur University

**Dr Veerabhadrayya M**, Dept of Physics, Tumkur University

**Dr Narayan Gaonkar**, Dept of Physics, Tumkur University

**Dr Nagaraj Rao M K**, Yoga Instructor, Tumakuru

## Steering Committee

### Advisors

**Dr (Mrs) N Kalaiselvi**, DG-CSIR & Secretary, DSIR, New Delhi  
**Dr Tessy Thomas**, DG-DRDO-Aero, Bengaluru  
**Dr N Valarmathi**, Former Project Director, RISAT, ISRO, Bengaluru  
**Dr V R Lalithamibka**, Director, DHSP, ISRO, Bengaluru  
**Dr Rohini Godbole**, Prof. Centre for High Energy Physics, IISc, Bengaluru  
**Dr Vijayalakshmi Deshmane**, Former Director, KIDWAI, Bengaluru

**Dr H S Savithri**, Prof. Dept of Biochemistry, IISc, Bengaluru  
**Dr Meera Kaushal**, Former Chef Scientist, GTRE-DRDO, Bengaluru  
**Dr Vaidehi Ganesan**, Former Sr. Scientist, IGCAR, Kalpakam  
**Dr Lakshmi Kantam Manneppalli**, Former – Director, CSIR-IICT, Hyderabad  
**Dr T K Anuradha**, Former Satellite Project Director, ISRO, Bengaluru  
**Prof Sharada Srinivasan**, Prof. NIAS, Bengaluru

### Thematic Convenors

#### 1. Paanineeyam: Ashtadhyayi, Linguistic Sciences & Humanities

**Dr M R Padmaja**, HOD, Dept. of Sanskrit, RCASC, Bengaluru; **Dr Monbinder Kaur**, Asst. Prof. Dept of English, TUT; **Smt Dakshayani G**, Asst. Prof. Dept of English, TUT

#### 2. Patanjaleeyam: Astanga Yoga, Psycho-spiritual & Philosophical Sciences, Physical Education & Psychology

**Smt Shanthala K**, Asso. Prof. Dept of Psychology, UCC, Tumakuru; **Dr Vanajakshi E**, Asst Prof. Dept of Commerce, TUT; **Dr Shobha C**, Asst Prof. Dept of Commerce, TUT  
**Dr Salma Banu**, Asst Prof. Dept of Commerce, TUT

#### 3. Bharateeyam : Natyasastra, Socio-cultural Sciences, Arts & Music

**Dr Geetha R**, Asst. Prof., Dept. of Sanskrit, BMSCCM, Bengaluru; **Dr Jayashree Venkatesh**, Apparel Technology & Management, Bangalore University;  
**Dr Renuka H R**, Asst Prof. Dept of Kannada, TUT; **Dr Sunitha V Ganigera**, Asst Prof. Dept of Sociology, TUT; **Dr Ashwini**, Asst Prof. Dept of Sociology, TUT

#### 4. Kautilyeeyam : Economics, Sociology, Political Sciences, Social Work & Management Sciences

**Dr Padmini S V**, Asst Prof. Dept of Economics, TUT; **Dr Pallavi S Kusugal**, Asst Prof. Dept of Economics, TUT; **Dr Priya Thakur**, Asst Prof. Dept of History & Archaeology  
TUT ; **Dr Girija K S**, Asst Prof. Dept of Political Sciences, TUT; **Dr Noor Afza**, Prof. Dept of Business Administration, TUT

#### 5. Dhanvantareeyam : Health, Modern Medicine, Ayurveda, Siddha, Unani & Indian System of Medicine

**Dr Nirmala Kelmani**, Prof & HOD, Dept. of Dravyaguna, SHAMCHRC, Kalaburagi; **Dr Pallavi Kiradi**, Ayurveda Doctor, Bengaluru

#### 6. Parashareeyam : Agriculture, Sericulture, Horticulture, Forestry, Veterinary, Animal Husbandry & Fisheries Sciences

**Dr Rashmi Hosamani**, Asst. Prof. Dept of Microbiology TUT; **Smt Shabeena Anjum K**, Asst. Prof. Dept of Microbiology TUT; **Dr Ashiya Nuzhath B**, Dept of Zoology, TUT

#### 7. Vasundareeyam : Earth Sciences, Environmental Sciences, Cosmology & Ecology

**Dr Parimala B**, Asst. Prof. Dept of Zoology, TUT; **Smt Ashwini Ramesh**, Asst Prof Environmental Studies, RCASC, Bluru; **Dr Lalitha H M**, Asst. Prof. Dept of  
Zoology, TUT

#### 8. Nagarjuneeyam : Chemical, Biological & Materials Sciences

**Dr Nirmala B**, Asst. Prof. Dept of Chemistry, TUT; **Dr Madavi Sunita**, Asst. Prof. Dept of Chemistry, TUT; **Dr Lalithambiak H S**, Asso. Prof. and HOD, Dept. of Chemistry,  
SIT, Tumkur; **Dr. Bhagyalakshmi**, Asst. Prof. Dept of Chemistry, TUT; **Dr. Savitha K. R**, Dept of Chemistry, TUT; **Dr Shashikala A R**, Prof & HOD, Chemistry, Presidency  
University, Bluru

#### 9. Bhaskareeyam : Physical, Mathematical & Astro-Physical Sciences

**Dr Chandrali Baishya**, Asst. Prof. Dept of Mathematics, TUT;

#### 10. Bharadvajeeyam : Civil, Mechanical, Aerospace & Transportation Sciences

**Dr Bharathi Ganesh**, Prof. & HOD Dept of Civil Engineering, NMIT, Bluru; **Dr Jyothilakshmi. R**, Asso. Prof., Dept of Mech. Engineering, RIT, Bluru

#### 11. J.C. Boseeyam : Electronics, Energy & Communication Sciences

**Dr Shwetha D**, Asst. Prof. Dept of Electronics, TUT; **Dr Setuselvi**, HOD ECE, RIT, Bengaluru; **Dr K Indira**, Dept of EC, RIT, Bengaluru

#### 12. Varahamihiram: Brihadsamhitha, IT, BT, NT, FT & Frontier Sciences

**Dr Poornima D**, Asst. Prof. Dept of Biotechnology, TUT; **Dr Ramani R**, Asst. Prof. Dept of Computer Sciences, TUT; **Dr Kusuma Kumari B M**, Asst. Prof. Dept of Computer  
Sciences, TUT; **Dr Hemavathi B N**, Asst. Prof. Dept of Library & Information Sciences, TUT; **Dr Nalini N**, Prof. Dept of CS, NMIT, Bengaluru

### Address for Correspondence

General Secretary, Swadeshi Vijnana Andolana - Karnataka; "Swadeshi Sadan", Guru Narayana Vidya Vihar, Hebbal, Bengaluru-560 024;  
Mobile: 9945137478 / 9591766361; e-mail: [nwsc23tut@gmail.com](mailto:nwsc23tut@gmail.com)  
Web: [www.svak.org](http://www.svak.org) / [www.tumkuruniversity.ac.in](http://www.tumkuruniversity.ac.in)