



*National Conference  
on  
Science & Technology for Women Empowerment  
and Rural Development*

**13 - 14 October 2023**



## Conference Report

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Organised by  
**National Academy of Sciences, India**  
&  
**Pt. Ravishankar Shukla University, Raipur**  
(School of Studies in Biotechnology, University Institute of Pharmacy,  
and Centre for Women's Studies)



## Introduction

Women empowerment aims to strengthen women's spiritual, political, social, and economic capacities. Achieving this involves greater representation of women in decision-making, both in scientific and political spheres. Their voices in governance are crucial for driving societal changes. India, in its 75<sup>th</sup> year of independence, celebrates "Azaadi Ka Amrit Mahotsav" with a mission to empower women for a stronger nation. In an agrarian economy like India, where 54.6% of the workforce is engaged in agriculture, 41.8% of rural women and 35.3% of urban women are part of the workforce. Rural women, numbering around 350 million, are pivotal in driving social, economic, and environmental transformations. Empowering them not only benefits their families but also contribute significantly to the economy.

## The Program

Aim is to create a more inclusive, equitable, and empowered society where women play a pivotal role in driving positive change at various levels - from the grassroots to the national stage. Pt. Ravishankar Shukla University, Raipur, organized a Two-Days National Conference on "Science & Technology for Women Empowerment and Rural Development" during 13-14 October 2023. The conference aimed to bring the views of experts, researchers, academia, and students to the forefront, with the purpose of fostering an environment of intellectual growth, collaboration, and innovation. Through the dissemination of research findings and the exchange of ideas, we aspire to contribute towards collective effort of empowering rural women in India and creating a more inclusive and equitable society.

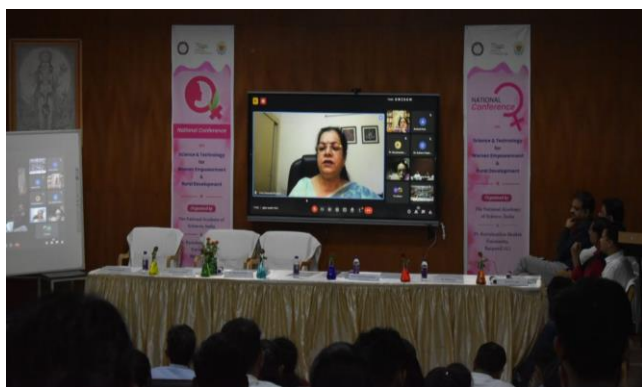
## Inaugural Session

The Inaugural Function of the conference was hosted by **Dr Bhanushri Gupta**, Assistant Professor, Centre for Basic Sciences, PRSU, and was began with a Ceremonial Lamp Lighting, followed by the Kulgeet of the University. This function was led by **Prof Keshav Kant Sahu**, Convener of the Conference and Head, School of Studies in Biotechnology, PRSU. Distinguished guests including **Prof Sachchidanand Shukla**, Hon'ble Vice-Chancellor, PRSU; **Mr SS Bajaj**, Director General, Chhattisgarh Council of Science & Technology, Raipur; **Dr Rajendra Dobhal**, Vice-Chancellor, Shree Rama Himalayan University, Dehradun; **Dr Niraj Kumar**, Executive Secretary, NASI, Allahabad; **Prof Paramjit Khurana**, Department of PMB, Delhi University, South Campus; **Dr Pratibha Jolly**, Former Principal, Miranda House, Delhi University; **Dr SJ Dhararwal**, Director, University Institute of Pharmacy, PRSU; **Prof Reeta Venugopal**, Coordinator, Centre for Women's Studies, PRSU; **Padma Bhushan Dr Manju Sharma**, Past President, NASI and Former Secretary to the Govt of India, Department of Biotechnology; **Padma Shri Prof Balram Bhargava**, President, NASI and Chief of the Cardiothoracic Centre of AIIMS, New Delhi; and **Ms Archana Pant**, YWS, NASI, Allahabad. Their warm welcome set the tone of the conference.

**Prof Keshav Kant Sahu**, Convener of the Conference, delivered a warm welcome address, followed by **Prof Sachchidanand Shukla**, who emphasized the pivotal role of women in science and technology and their progress in the field. **Dr Niraj Kumar** shed light on the initiatives of NASI aimed at addressing challenges faced by women, including programs focused on science communication and education. **Prof Paramjit Khurana** highlighted the various training programs, especially for women from underprivileged backgrounds, and grants aiding schedule tribe women in regions like Uttarakhand and Jharkhand.

**Prof Pratibha Jolly** delivered a Key-Note address entitled **Rural Women: Science and Technology for an Equal Future**. She eloquently discussed evolving goals in changing times, the mantra of innovation, and how rural India was outpacing its urban counterpart. She emphasized a smart future through participatory action and women's engagement. She also touched upon global challenges and the heightened vulnerability of women during natural disasters.

**Mr SS Bajaj Sir** spoke passionately about the invaluable contributions of women and their significance in various spheres. **Padma Bhushan Dr Manju Sharma** provided special insights into the endeavors of NASI. The inaugural address of **Padma Shri Prof Balram Bhargava** left an indelible mark, and inspired all the participants. At the last, **Ms Archana Pant** extended a gracious vote of thanks, marking a fitting conclusion of the inaugural function.



## Day-1: 13 October 2023

### First Technical Session:

The first technical session focused on Women Empowerment was Chaired and Co-Chaired by **Prof Preeti K Suresh** and **Dr Manju Singh** respectively of University Institute of Pharmacy, PRSU. In this session, first Invited Talk was delivered by **Prof SR Joshi** from Department of Biotechnology, North Eastern Hill University, Shillong. Title of the lecture was **Rural Women Empowerment and National Development: Role of Science and Technology in Tribal Society of North-East India**. He highlighted women's involvement in science and technology, discussed DST initiatives for women, and emphasized Northeast perspectives. He also talked about empowerment programs like vermicomposting, mushroom cultivation, and their positive impact on rural communities, along with the benefits of fish farming.

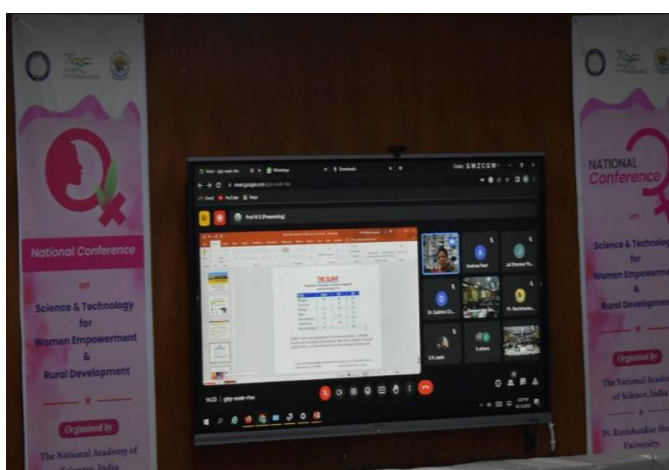
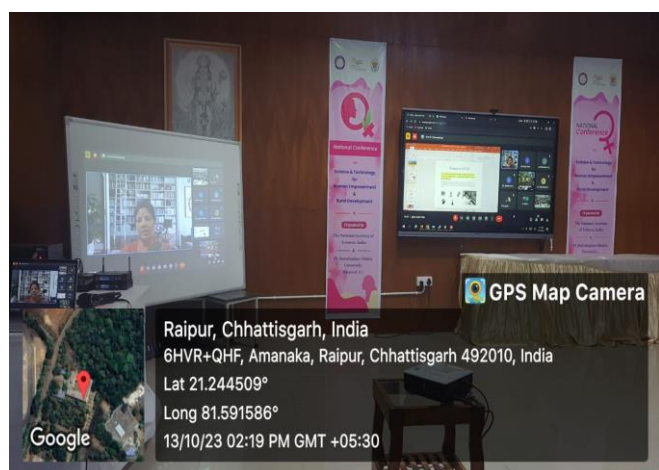
The second Invited Speaker, **Prof Neelam Sangwan** from Central University of Haryana, Mahendergarh, spoke on **Women in STEM: Expanding Horizons**. She discussed the status of women in science and innovation, highlighted notable female Nobel laureates, and emphasized the potential of plant-based natural products in healthcare. **Prof Sangwan** underscored the lifesaving properties of several plant-based products.

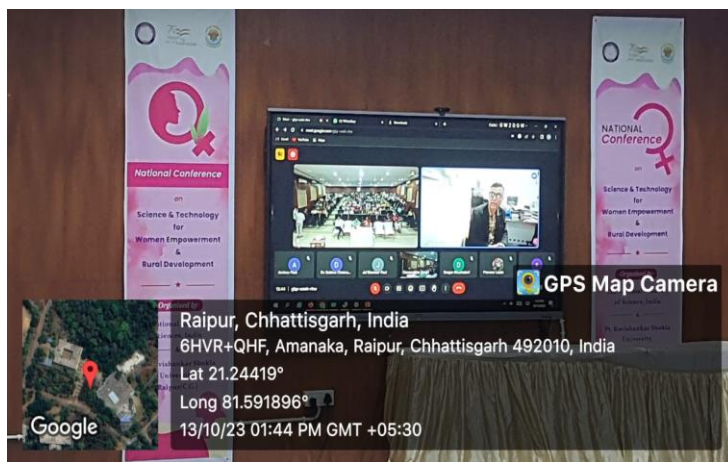
## Second Technical Session:

In the second technical session, Prof. Priyamvada Shrivastav, Head, School of Studies in Psychology, PRSU, was present as Chairperson, and Prof. Reeta Venugopal, Director, Centre for Women's Studies, PRSU was present as Co-chairperson. In this session, **Dr N Ranjana**, Director, DSTA, DRDO, New Delhi, served as the first Invited Speaker, who gave a lecture on "**Defence Research & Development: Women Scientists as Harbingers of Change**". In her lecture, she emphasized that women empowerment is a crucial aim, as it contributes equally to growth and development of the nation. **Dr Ranjana** also discussed about contributions of women in the Chandrayan Mission and their role in driving the economy through advancements in science and technology, which plays a pivotal role in building future of our nation.

**Dr Subhra Chakraborty**, Director, NIPGR, New Delhi, delivered second Invited Lecture on the topic "**Transforming Lives: Plant Science in Bio-economy**". She talked solely about empowering women. By spotlighting the accomplishments of eminent women scientists who had received Nobel Prizes, she underscored their substantial contributions to plant science within our nation. This recognition not only celebrated their achievements but also served as an inspiration for aspiring women scientists, furthering the cause of women empowerment in the field of science and beyond.

Thereafter, **Prof Sunil Bhagwat**, Director, IISER, Pune, addressed the vital aspect of rural development through the topic "**Electricity is Regularly Essential for Chilling**", as third Invited Speaker of this technical session. He emphasized the consistent requirement for electricity, especially in crucial processes such as chilling and pasteurization processes of milk. Additionally, **Prof Bhagwat** explored the potential of solar-based air conditioning systems in India, aligning with the broader goals of rural progress and sustainability.





## Poster Presentation:



First day culminated with the exhibition of 34 posters. **Dr Deependra Singh**, Associate Professor, University Institute of Pharmacy, PRSU; **Dr Amber Vyas**, Associate Professor, University Institute of Pharmacy, PRSU; **Dr Vishal Jain**, Associate Professor, University Institute of Pharmacy, PRSU; and **Dr Indrapal Karbhal**, Assistant Professor, School of Studies in Chemistry, PRSU; and **Dr Nagendra Chandrawanshi**, Assistant Professor, School of Studies in Biotechnology were the evaluators of the displayed posters.

The program came to an end with the distribution of certificates to the Chairpersons, Co-chairpersons and evaluators. Students were highly benefited from the inspirational lectures of distinguished speakers during the course of the scientific sessions and this served as a vector for their future endeavors.

## Day-2: 14 October 2023

The second day of the conference was initiated with the third technical session.

### Third Technical Session:

**Prof Aditi Poddar**, School of Life Sciences, PRSU, and **Prof Ashok Pradhan**, School Studies in Anthropology, PRSU, were served as Chairperson and Co-chairperson respectively of third technical session. Invited speaker **Dr Rajendra Dhobal**, Vice-Chancellor, SRH University, Dehradun, spoke on "**Rural Entrepreneurship- Promotion for Regional Economic Growth**". He informed about various experiments and programs conducted and successfully completed by him regarding women empowerment, especially in rural areas, and encouraged the students to pursue entrepreneurship.

### Fourth Technical Session:

The fourth technical session was Chaired by **Prof KK Ghosh**, School of Studies in Chemistry, PRSU, and Co-chaired by **Prof Arti Parganiha**, School of Life Sciences, PRSU. Invited speaker, **Dr Deepa Khushalani**, Department of Chemistry, Tata Institute of Fundamental Research, Mumbai, gave an overview of "**Soft Skills for a Career in STEM**". In the lecture, she talked about the importance of soft skills in life. She also stressed how crucial it is for a woman to develop self-confidence and live her own life. The second speaker of the session, **Mr MD Khan**, Senior Consultant, National Institute of Rural Development and Panchayati Raj, Hyderabad, spoke about "**Rural Technology for Women Empowerment and Rural Development**". He talked about various ongoing schemes of Government of India for women empowerment, and also how thousands of people from different communities are involved in the women's welfare system. He provided facts and gave various successful examples of women entrepreneurs.

### Fifth Technical Session (Interactive Session):

This session was an interactive session and was Chaired by **Padma Shri Dr Manju Sharma**, Former President of NASI, and Co-chaired by **Prof Paramjeet Khurana**, Department of PMB, Delhi University, South Campus. In this session, all the Chairpersons and Co-chairpersons like **Dr Preeti K Suresh**, **Pro Rita Venugopal**, **Prof KK Ghosh**, **Dr Manju Singh**, **Prof Arti Parganiha**, *etc.*, gave brief remarks about various technical sessions of the conference, and thanked the organizers for conducting this conference.

## Sixth Technical Session (Valedictory Function):

The last session of this conference was the Valedictory Function. All the dignitaries from NASI joined this ceremony in online mode through Google Meet. This session was Chaired by **Padma Shri Dr Manju Sharma** Madam. In her concluding remarks she spoke about different technical sessions and congratulated the university for successful organization of the conference, and also spoke about future collaboration. Brief remarks about the conference were given by the convener of the conference **Prof Keshav Kant Sahu** who thanked all the invited speakers and thank NASI for sparing their precious time and their active participation and involvement in the conference. A few of the participants shared their experiences and gave feedback of the conference. At the end, **“Best Poster Presentation Award”** were given to the winners. At the last, vote of thank was extended by **Ms Archana Pant** on behalf of NASI, while **Prof Keshav Kant Sahu** thanked all those persons who were contributed directly and indirectly in the organization of this conference. The conference ended on a fruitful note and lunch was served to all afterwards.

## Glimpses of the event:







**(Keshav Kant Sahu)**  
Convener