



# Vigyan Vidushi - a unique initiative for mentoring aspiring young women

*Dighe Amol<sup>1</sup> , Mazumdar Anwesh<sup>2</sup> , Nanal Vandana<sup>3</sup>*

*1 Department of Theoretical Physics, Tata Institute of Fundamental Research, Mumbai 400005, India*

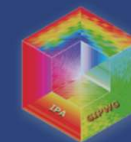
*2 Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research, Mumbai 400088, India*

*3 Dept. of Nuclear and Atomic Physics, Tata Institute of Fundamental Research, Mumbai 400005, India*



**ICWIP 2023**  
**8th International Conference**  
**on Women in Physics**

10-14 July, 2023



# Vigyan Vidushi



*Advanced programme in Physics*

for women students in penultimate year of Masters degree programme

for Providing opportunities to level the playing field & increasing awareness.

## Objective :

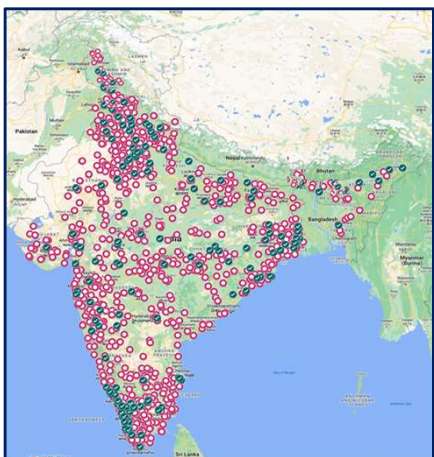
- Need to address the gender imbalance in STEM, particularly Physics
- In India, fraction of women students in Physics PhD programmes at premier research institutions is too low (~20%)
- Aim to encourage and equip women students for a career in Physics through an intervention at a critical decision-making point
- Multi-pronged approach to provide: advanced content training, exposure to research fields, awareness of career options, interaction with women scientists and role models



# Vigyan Vidushi Advanced Summer School

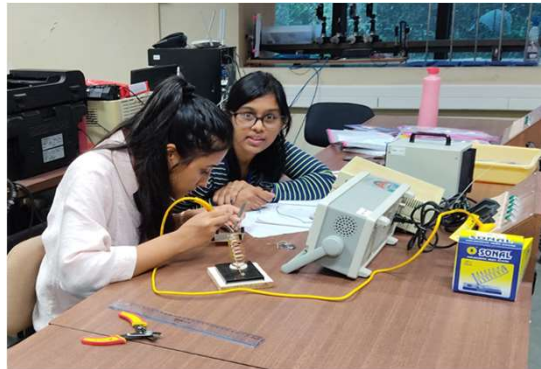
## Modality

- Students selected from across the nation with **equitable institutional as well as geographic distribution** (yearly ~700 applications, 50 selected )
- Travel support and local hospitality is provided
- Typically five to six “courses” (8 – 20 hours each)
  - **Core & Specialized topics**
  - **Experimental Techniques – innovative experiments with inquiry-based approach + orientation lectures**
  - **Introduction to Physics Education Research**



- Visits to TIFR labs
- Special Lectures (including Bibha Chowdhuri Memorial Lecture) by eminent women scientists and entrepreneurs
- Career Guidance Workshops
- Mentoring on gender-specific issues
- Interaction with established women scientists as well as early-career women researchers

# Journey of VV So far



More details in

- Physics News Vol. 50 (3) 42-44 (2020)
- AAPPS Bulletin Vol. 30(5) 23-24 (2020)

<https://vv.hbcse.tifr.res.in/>



*be a WOMAN : WOrk for Mentoring And Networking*



## Vigyan Vidushi - Journey so far

- The programme has been running successfully for 4 years in a row, although the first two years it was entirely in an online mode (13 courses taught, 11 available online)
- Career Guidance Workshops and Group Discussions held by women scientists from TIFR/HBCSE/NCRA/ICTS and ex-TIFR women faculty
- *Interactive sessions led the way for PAWS (Program for Aspiring Women Scientists) of Gender in Physics Working Group of India Physics Association (GIPWG-IPA), subsequently to the satellite workshop on combating biases in this conference.*
- TIFR Mathematics and Computer Science also started similar programmes

About ~200 students trained in these 4 years

*30% of last 3 editions of VV have joined PhD and additional 13% have been selected in various PhD programmes this year.*

*8 students are in various centres of TIFR*

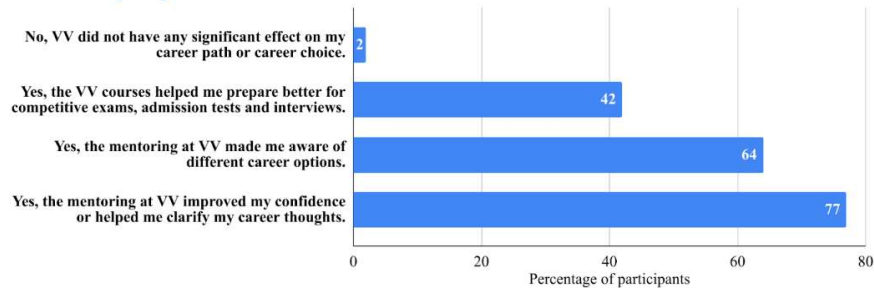
**Many of these students had earlier expressed that they were unsure of their future direction before participating in VV and the programme has inspired them to go for research as a career.**



# What students have to say...

- *Most have found courses and materials useful*
- *Most have appreciated interactive discussions with women scientists and career guidance workshop (unique feature)*

Effect of VV on participants' careers



*These interactive sessions were very helpful in the sense that most of the students were not clear about their career options which were cleared by experienced personalities, and the biggest gain was the confidence to speak and share your problem with other people which was very difficult even for me but in smaller groups we couldn't hide and have to speak up hence it has boosted our confidence to talk and discuss with others.*

*...that VV program made me realise that it's not where I come from that matters but what I come with. I have been really confident in what I want to see my life like, all thanks to the great table talks..*

*The safe space that these sessions provided cannot be overstated. In all my academic career, I have never had access to such a forum where I could discuss my fears and insecurities without fear of being judged. The inclusivity that the mentors promoted made all of us also bond together as a group. ....It was nice to bond with others who seemed to have the same kind of fears and was an opportunity to help each other through our fears instead of pushing down. I also enjoyed being in a woman only space where we're taught to see each other as friends and helpers instead of competitors.*