

# ANNOUNCEMENT

## IAPT National Competition on Essay Writing in Physics (NCEWP - 2025)



*Writing makes one perfect, essay writing more so.....*

### **Broad Topic: - A Journey of 100 years of Quantum Mechanics**

**Max Planck**: Originator of quantum theory renounced previous physics and introduced the concept of 'quanta' of energy. These are small 'packets' that can only hold certain, prescribed amounts of energy. In 1959, physicist **Richard Feynman** recognized that quantum mechanics, with its unique properties like entanglement, superposition, decoherence, coherence, tunnelling, and teleportation, held the key to solving complex quantum problems.

In what's considered the first quantum revolution of the 20th century, scientists observed quantum properties that enabled development of technologies such as lasers, the transistor, magnetic resonance imaging, and semiconductors.

The second quantum revolution is all about controlling individual quantum systems, such as ion molecules, spins, quantum dots, to a greater extent than before, enabling even more powerful applications in quantum computing and quantum information. UNESCO has declared 2025 as the International Year of Quantum Science and Technology. IAPT being a Physics Society feels privileged to be part of this celebration and this IAPT NCEWP-2025 is dedicated to the pioneers of quantum science and Technology.

**NCEWP** is one of the four national competitions being held by IAPT every year. The competition is open to participants in two categories viz., students and teachers (including Science Communicators).

**Category A** - Students of (i) Higher Secondary /Jr. College, (ii) UG and (iii) PG level;  
**Category B** - Teachers of (i) Higher Secondary/Jr. College, (ii) UG and (iii) PG institutions, also Science Communicators working in recognized institutions.

You may write your entry for the essay competition keeping following points as broad guidelines to make your entry stand out

1. Early Developments
2. Experimental Evidence of hypothesis and theories of quantum mechanics
3. First Quantum revolution
4. Second Quantum revolution
5. Brief description of some recent developments in quantum mechanics e.g., Quantum entanglement, Energy teleportation, Machine learning, Quantum resistance standard, Infrared detectors, Quantum sensing, Laser technique, Superconducting circuits, Qubits, Quantum technology
6. Quantum scientists and their contributions
7. Emergence of quantum technologies for the good of mankind
8. Future Possibilities

Note: It is only a guideline and not a structure for your essay. Imagine a title for your essay, be creative, scientific and innovative. Distil your thoughts on paper.

**General Instructions:**

- (1) The essay will be limited to A4 size 10 pages including figures/tables etc. type-written in the Times New Roman 11-point fonts, with 1.15 spacing. Please do not exceed the page limit.
- (2) **Hand written and scanned documents are not allowed.**
- (3) Each participant will be given **e-certificate**.
- (4) Participants will provide the following information with their Essay.  
Name.....  
Class/ Course..... Identity card copy  
Name of the School/ College/Institution.....  
E-mail..... Contact No....

A format for the essay is given below:

**IAPT National Competition on Essay Writing in Physics: 2025  
(NCEWP – 2025)**

**Broad Topic: - A Journey from Classical to Quantum World**

- I. **Category:** A or B (Tick your category)
- II. **Title of the Essay** (Font Size 14) (Choose a suitable title of your essay, short and Crisp)

- III. **Count of Words:** 5000 or 10 to 12 A4 size paper
- IV. **Author's Details** (with Affiliation & Signature) (Font size 12)
- V. **Abstract:** in 150 words (Font Size 10) Key Words (Maximum Five)
- VI. **Body of the Essay:** not more than 10 A4 size papers, you can include pictures, graphs, tables, infograph and other structures in your paper. (Font size 11) Add bibliography at the end of the papers, resources, websites, books etc. you have used in writing the essay,

### **Important Instructions for conduct and participation in IAPT Essay Competition NCEWP-2025**

- a) ***Who will conduct the Competition?*** All the Regional and Sub Regional Councils (RC's and SRC's) will conduct the regional level essay competition digitally by announcing the last date of submission of paper by 15<sup>th</sup> July 2025
- b) ***Who can receive the essays digitally?*** Higher Secondary/UG/PG students can submit their essays through e-mails to President/Secretary/EC member of the respective regional council. Only two entries per institution may be submitted in a category.
- c) ***How to send essay?*** Students will send their entries duly forwarded through respective school/college/institute to the appropriate Regional Council (RC) with all contact details of the competitor (Name, email, mobile number etc. clearly).
- d) ***How the scrutiny and selection of essays will be done at RC level?*** The RC's will have the initial scrutiny at their level. They will select 2 best essays from each level. Thus, each RC will submit 6 best entries to the national competition. RCs may award certificate etc., for their participants. Even the RCs may issue a certification of Participation to those whose Essays are sent to the National Competition.
- e) ***Language for writing the essay?*** For the regional competition, students may write their Essays in Hindi or their regional languages. If such entries are forwarded for the National Competition, then the concerned RCs will translate the Essay in English (with the help of Google translator etc.). Only **English Version** of the submitted essay has to be submitted/forwarded for National Level Competition.
- f) ***Whom to send entries of Science Communicators, teachers:*** Teachers & Science Communicators will send their entries through e-mails duly forwarded directly to the Coordinator NCEWP. Retired teachers can self-attest their entry.

- g) ***Evaluation Process:*** All entries will be assessed by three evaluators. All entries (in English only) will be scrutinized reviewed and ranked.
- h) ***Plagiarism Check:*** All entries will be subjected to an online plagiarism test. Essays found failing in test will be rejected out rightly.
- i) ***LAST DATE of submission:*** The last date for essay submission is **30th July, 2025**. Final entries for the national competition must be submitted in PDF format by e-mail to any one of the following:

**Prof. S. K. Joshi, Coordinator, NCEWP-2025**

joshisantoshk@yahoo.com (M) 09893084286

Dr. Viresh Thakkar, Member, vireshhthakkar@gmail.com

Dr. Runima Baishya, Member, runimabaishya@gmail.com

Dr.V. Rajeshwar Rao, Member, drvvr\_kitss@rediffmail.com

**Feel of Quality:** To get a feel of the quality of this essay writing competition on Physics, visit our website NCEWP page: <https://www.indapt.org.in/f/Essay-Writing-NCEWP-19875?source=view> to download winning entries of the past competitions available in the form of e-books