

# ENTECH

EXPLORE YOUR PASSION

FEB-2024 | VOLUME-2 | ISSUE-2

CAREER PLANNING COMPANION FOR  
GRADE 8 TO 12 STUDENTS

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FOR ASPIRING  
Scientists  
Technocrats  
Engineers  
Mathematicians



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## About the Magazine

ENTECH is a magazine that comes out every month. It is for teenagers between the ages of 13 and 18. The magazine focuses on Science, Technology, Engineering, and Mathematics (STEM). It helps teens find out what they are interested in and what they love. ENTECH shows them how to turn their passion into a career. The magazine has short articles. These are written by professionals, innovators, researchers, and teachers.

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## From the desk of Editor

### The Potential of Nuclear Fusion to Solve the Energy Crisis

The world is facing a pressing issue - the depletion of fossil fuels and the increasing demand for energy. With our current methods of energy production, we are not only contributing to climate change but also exhausting our limited resources. However, there is one solution that has been gaining attention in recent years - nuclear fusion.

Nuclear fusion is the process of combining two or more atomic nuclei to form a heavier nucleus, releasing a significant amount of energy in the process. This is the same process that powers the sun and other stars. Unlike nuclear fission, which is currently used in nuclear power plants, fusion does not produce harmful radioactive waste or emit greenhouse gases.

### The Promise of Clean and Sustainable Energy

The potential benefits of nuclear fusion are immense. It could provide us with a virtually limitless source of clean and sustainable energy, without contributing to climate change or producing hazardous waste. The fuel used for fusion reactions - hydrogen isotopes deuterium and tritium - can be extracted from seawater and are abundant on Earth.

Moreover, unlike other renewable energy sources such as solar or wind power, nuclear fusion does not rely on weather conditions and can produce energy consistently.

This makes it a more reliable source of energy for our growing population's needs.

### Recent Advancements in Nuclear Fusion Technology

While nuclear fusion has been studied for decades, it is only in recent years that significant advancements have been made towards making it a viable energy source. One of the most notable projects is the International Thermonuclear Experimental Reactor (ITER) - a collaboration between 35 countries to build the world's largest fusion reactor.

As we face an impending energy crisis and environmental concerns, nuclear fusion offers a glimmer of hope for a cleaner and more sustainable future. Let us continue supporting and promoting this technology for the benefit of our planet and future generations.

**Charudatta Pathak**

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## S. D. SURYAWANSHI

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