

# Shreenabh Agrawal



# Highest Civilian Honour for Children

## Recipient of Pradhan Mantri Rashtriya Bal Puraskar

Puraskar, India's highest civilian honour bestowed upon exceptional achievers under the age of 18 in the category of “Innovation”.



Narendra Modi   
@narendramodi



Shreenabh Moujesh Agrawal's work seeks to bring a positive difference in the lives of our hardworking farmers. I admire his tenacity and thoughtfulness, that he is thinking about such subjects from a young age. Congrats to him on winning the Rashtriya Bal Puraskar 2021.

### SHREENABH MOUJESH AGRAWAL

Master Shreenabh Moujesh Agrawal is a 18-year-old innovator from Nagpur district of Maharashtra. He has many innovations to his credit. The most distinguished is the novel and effective *Tridax procumbens* extract. This is a low-cost, eco-friendly, immune-modulatory extract to deal with the deadly Yellow Mosaic virus disease in *Abelmoschus esculentus* (okra) which causes 50-94% losses annually to farmers globally. His other innovations include 'Neer Setu Farming', a jute reinforced farming method to save crops from drought; 'Vlyog: Grey Water Segregation for Conservation'; Triple Lock life-saving bore hole protection lid which prevents children from falling into unattended bore wells in farms and elsewhere; CENDRN, based on an innovative entropy source to prevent cyber frauds in direct benefit transfer of government sanctioned money to farmers; and Mahila-e-Hast: a gender-based e-commerce initiative.

Master Shreenabh Moujesh Agrawal is being awarded the Pradhan Mantri Rashtriya Bal Puraskar 2021 for his excellence in the field of Innovation.



### श्रीनभ मौजेश अग्रवाल

मास्टर श्रीनभ मौजेश अग्रवाल 18 साल के नवजागरक हैं और वह महाराष्ट्र के नागपुर जिले से हैं। इन्होंने यह नए आवेदकर निए हैं। इनमें से सबसे प्रतिष्ठित है नवा और प्रभावशाली द्रुहिकैवल्स ग्रोवन्डेन्ट एस्प्रेस्ट जो अधिकोन्सक्स एस्क्यूलेंट्स (ओक्रा) में यलो मौजेश का वायरस से रक्षा करता है। यह एक कम लागत वाली, पर्यावरण के अनुकूल घाटक पीले मौजेश का वायरस रोग से निपटने के लिए प्रतिशक्ति-विनियोगक अर्थ है। यह घाटक पीले मौजेश का वायरस रोग से वैशिक स्तर पर किसानों को सालाना 50-94% प्रतिशत नुकसान होता है। इनकी हासा तिक्के गए अन्य आविकारों में 'नीर सेतु फॉर्मिंग', फसलों को सुखे से बचाने के लिए एक चूट अवलित कृषि फलति; 'वियोग' : ये बादर सेवीयोगन फॉर कार्कीशन; 'ट्रिपल लॉक' जीकन साला बील प्रोटेक्शन वरक्कन जो बच्चों को खोने और अन्य जगहों पर अनजान गोर कुंजों में गिरने से रोकता है, 'श्री इ-एन-डी-आर-एन', सरकार हासा किसानों को भव्य धन के प्रत्यक्ष लाभ इस्तोरण में राहबद खोखारडी को खेलने के लिए एक इनोवेटिव एन्ट्रोफी योग पर आधारित सोच, और महिला-ए-हाट : एक सिंग आधारित ई-कॉमर्स पहल शामिल हैं।

मास्टर श्रीनभ मौजेश अग्रवाल को नवजागर के लिए एक अनूठा नवा दिव्यानुषीक्ति दी गई।

6:41 PM · 25 Jan, 2021

155 replies 2.3K shares 11.3K likes



# 2021 DIANA AWARD RECIPIENT

## SHREENABH AGRAWAL

#2021DianaAwards

# DIANA AWARD

The Diana Award honours young people who work to improve the lives of others. The Award is the most prestigious accolade a young person aged 9-25 can receive for their social action or humanitarian work.



**First prize**  
**(Trip to Tokyo, Japan;  
1 Lakh Yen, SEIKO Watch)**  
**in 2018 International  
Essay Competition for  
Young People  
organised by The Goi  
Peace Foundation and  
Japanese National  
Commission for  
UNESCO.**





Dinner hosted by  
**Embassy of India,**  
after the Award  
Ceremony which  
was attended by  
Ambassadors of  
many countries  
and presided by  
Princess of  
Morocco.



**Selected among Top  
20 students from  
India and China for  
two-week SEK City  
Elite Scholarship  
Camp at Sweden.**



**It was arranged by  
IVL and Swedish  
institute.**

**ISEF '20**

**Finalist at the World's  
biggest Regeneron ISEF  
(International Science  
and Engineering Fair)  
held from May 10-15,  
2020 at Anaheim,  
California 2020.**

**REGENERON**



A PROGRAM OF —  
**SOCIETY FOR SCIENCE & THE PUBLIC**

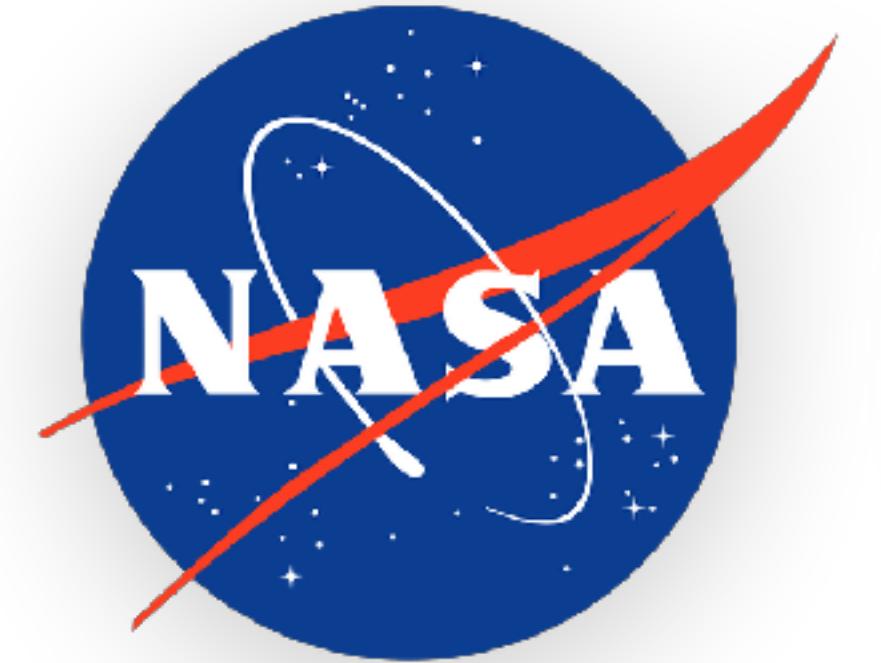
**VIRTUAL | 2020**

# IRIS '20

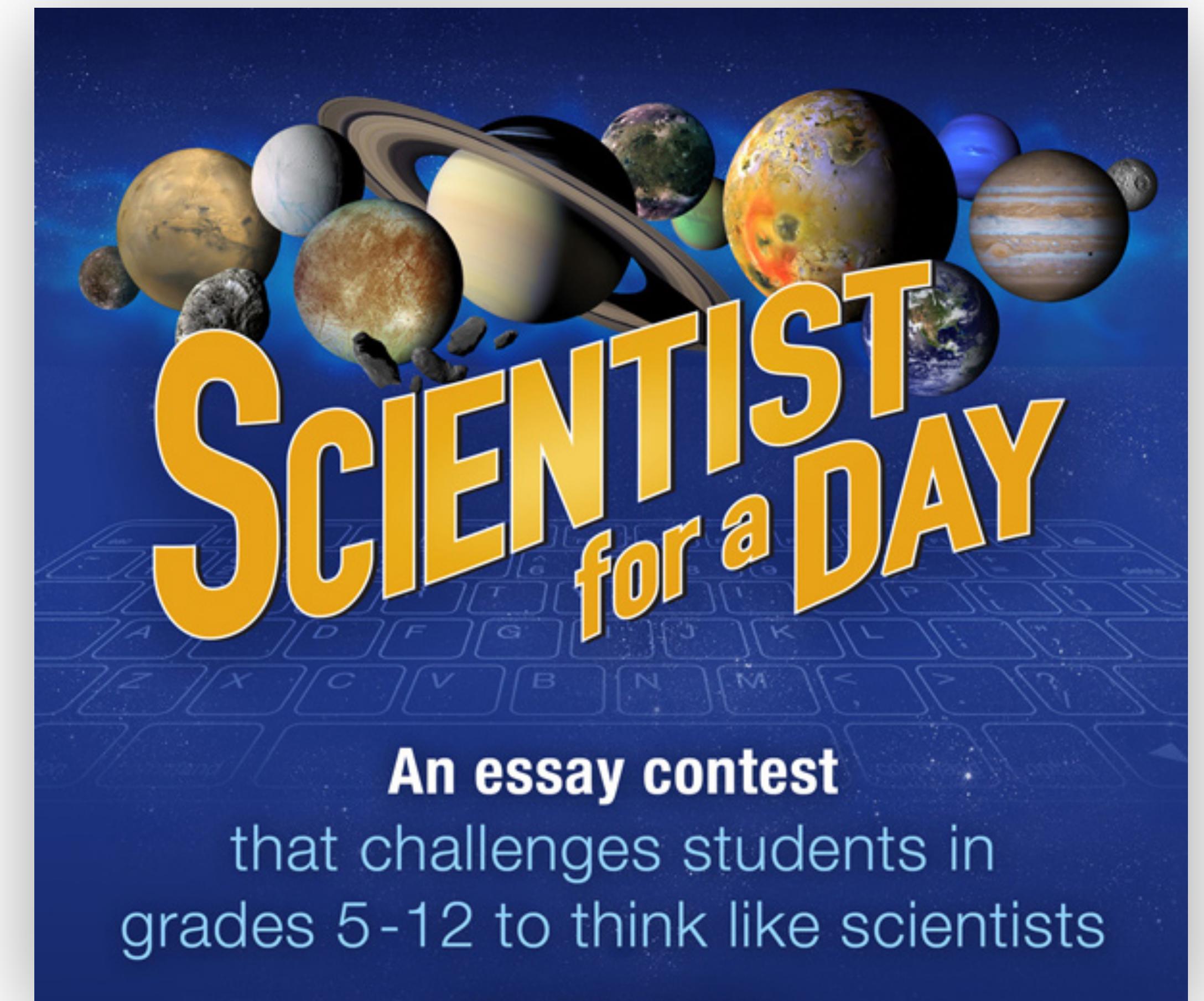


**Grand Award at IRIS**  
**(Initiative for Research  
and Innovation in  
Science) National  
Science Fair 2020 held  
from January 22-24,  
2020 at Bengaluru,  
Karnataka.**

# NASA Scientist for a Day



**Winner Grade 9-12  
Target-Europa in  
National Aeronautics and  
Space Administration  
(NASA) - Scientist for a  
day (2018-2019) essay  
contest.**



# IYMC '20

**Stood First in the World  
in the International  
Youth Math Challenge,  
one of the biggest  
online math  
competitions for  
students from all around  
the world.**

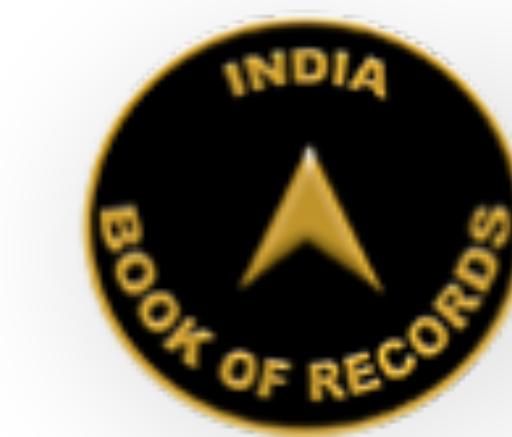


**Shreenabh Agrawal**  
**1. Prize Junior, 2020**

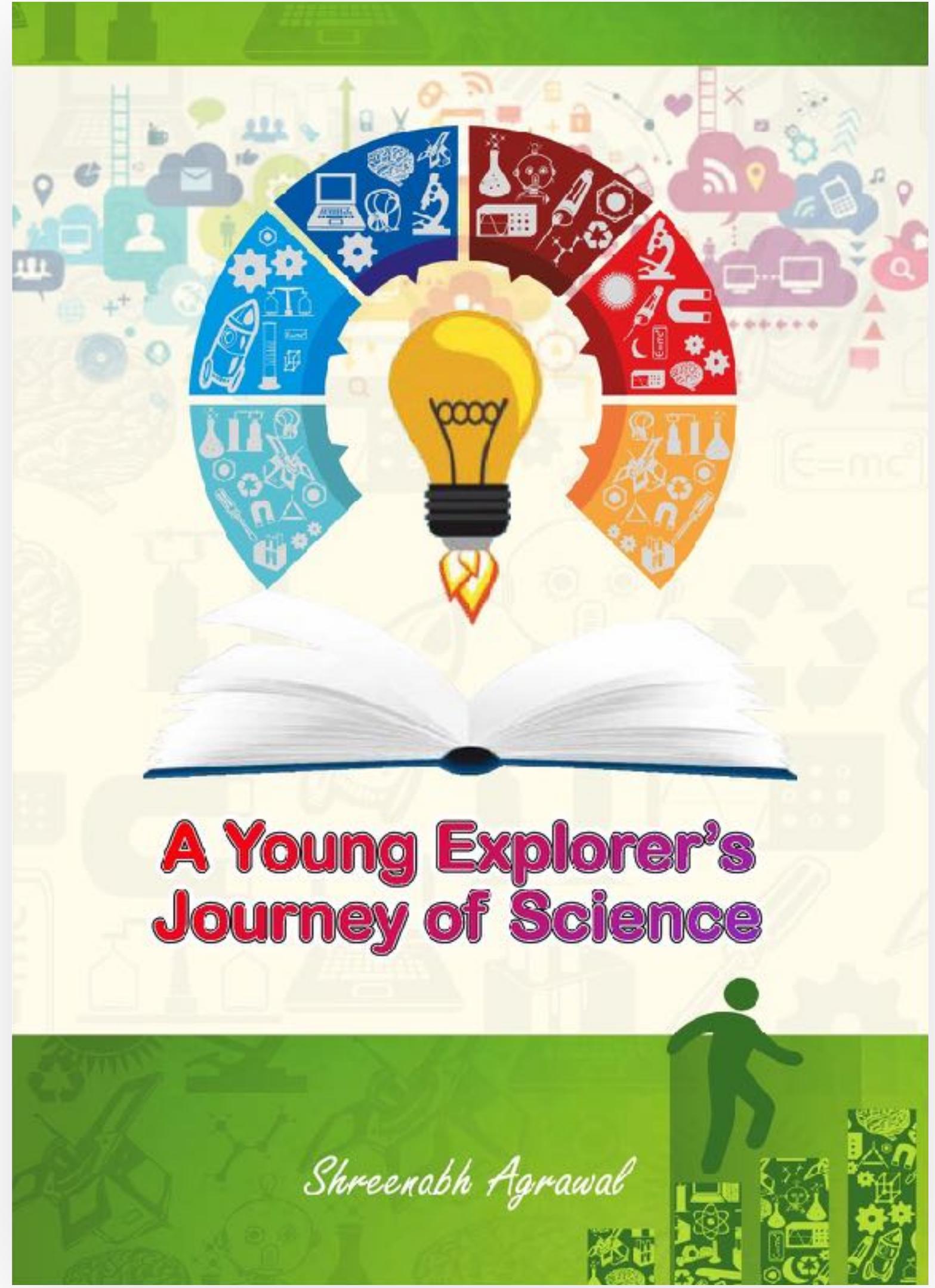


**“Maximum articles written by an adolescent to spread awareness about topics related to Science, artificial intelligence, nuclear security at the young age of 16 years and 3 months.”**

Awarded and included in India Book of Records as the Youngest to write a story book “Thank you, ModiJi” based on PM’s schemes and policies on 22 November 2015.



**India**  
Book of Records

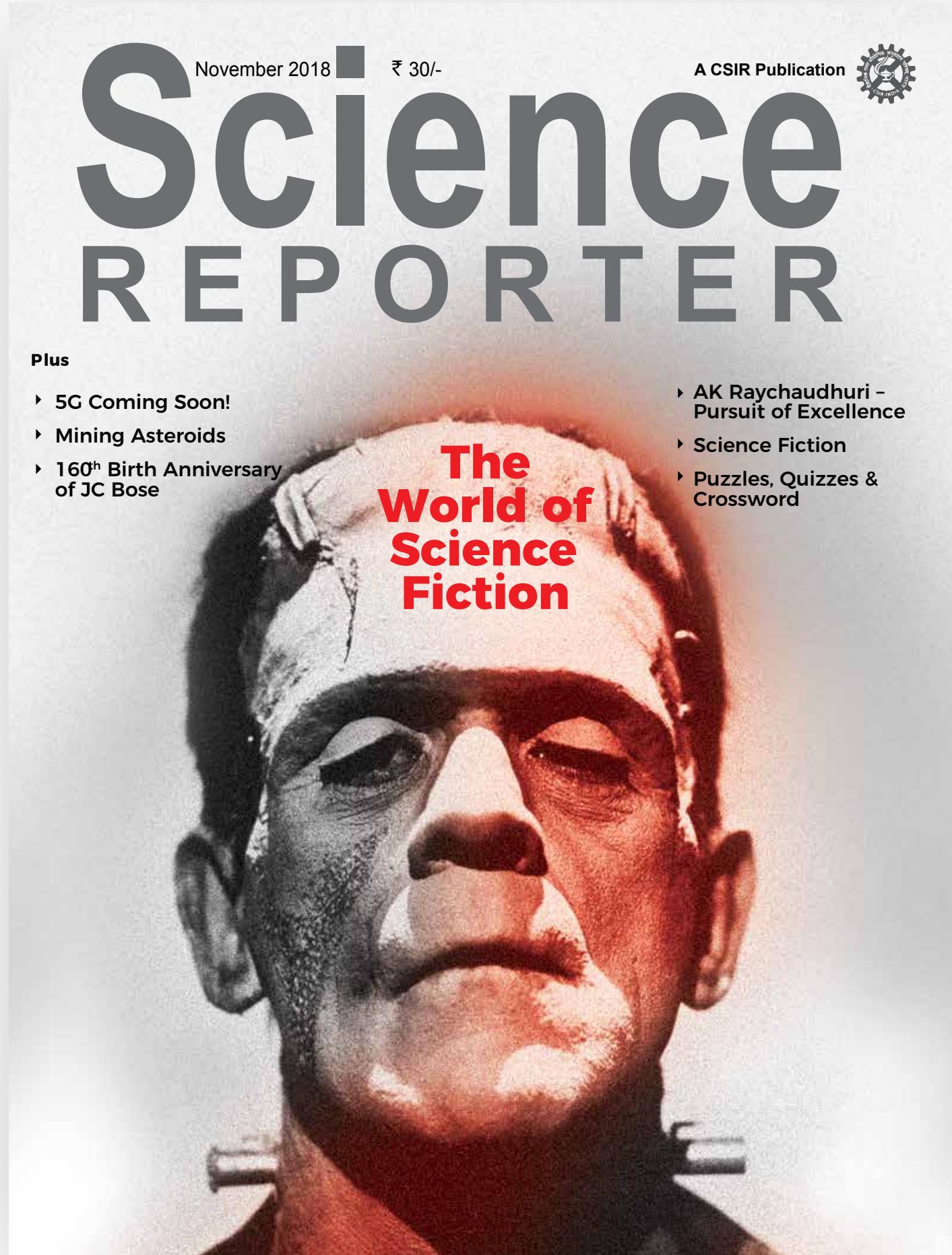


## Books Authored:

**“A Young Explorer’s Journey of Science” - including 20 science-based articles.**

**“Thank you, Modiji.” - including eight stories on Government Schemes.**

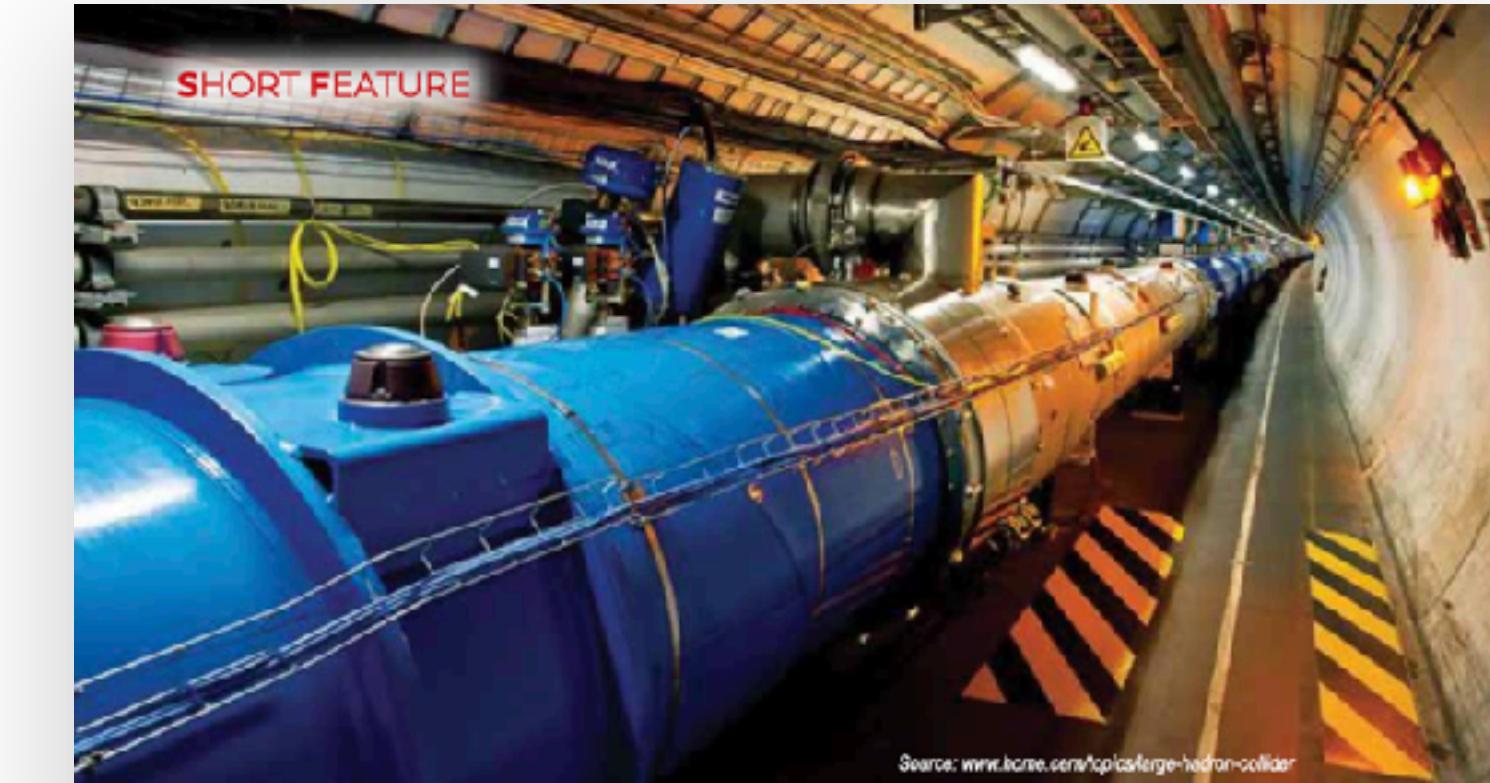




## Article Publications

Written more than 200 articles in National and International Newspapers, Magazines, Blogs and Portals.

Read a collection of the same [here](#).



### The World beyond Protons, Electrons & Neutrons

Shreenabh Agarwal

**E**VERYTHING in the universe is made up of atoms. But what is an atom made of? Subatomic particles – Protons, Electrons and Neutrons, right? But there is a world beyond them.

While trying to understand this concept, I came across a colouring book which gave me a beautiful insight into this subject. This colouring book is a product of the ATLAS (A Toroidal LHC Apparatus) experiment by CERN – the European organisation for nuclear research. It starts with the introduction of the first animated character Bob who is a Physicist looking for answers to two questions: ‘What are we made of?’ and ‘What happened at the beginning of the universe?’

Then comes the second animated character Betty who is an Engineer, involved in building particle detectors. Particle detectors are like giant microscopes. The book describes the particle detectors such that even a child can visualize it. It says, “The particle detector is longer than 3 school buses, taller than 3 Giraffes and heavier than Eiffel tower.” The Large Hadron Collider (LHC) is the world’s largest and most powerful particle detector.

Experiments have confirmed that the subatomic particles are not indivisible but they can be further divided into 17 elementary or fundamental particles. These 17 elementary particles can be grouped into three major categories: quarks, leptons and bosons.

The question that arises is: what is the role of these elementary particles? Quarks and leptons constitute matter and so are called matter particles whereas the bosons build up force and hence are termed force particles.

Quarks are the fundamental constituents of matter. They are of six types: up quark, down quark, top quark, bottom quark, strange quark and charm quark. They combine to form composite particles called Hadrons. The Hadrons are of two types: Baryons and Mesons. The Baryons are made up of three quarks and the mesons are made of one quark and one antiquark.

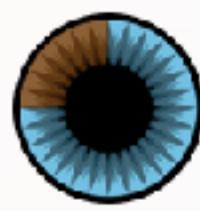
The most common examples of baryons are protons and neutrons. The up quarks and down quarks build up the protons and neutrons. An Up Quark (UQ) carries a charge of +2/3 and a Down Quark (DQ) carries a charge of -1/3. So, we can see, even protons and neutrons could be broken down into smaller units.

A proton is made up of two up quarks and one down quark. Hence its resulting charge is +1 (+2/3 + 2/3 - 1/3).

# PROJECTS

**Developed  
“Novel and Effective  
*Tridax procumbens*  
Extract for  
Protection against  
Yellow Mosaic Virus  
in *Abelmoschus*  
*esculentus* (Okra)“.**





Grant Sanderson  
@3blue1brown



This is a pretty neat integration of GPT-3,  
Wolfram Alpha and Manim to automatically  
create animations of equations being solved,  
created by [@ShreenabhA](#)



Greg Brockman @gdb · 15 Aug, 2020

An open-source tool for creating awesome math videos  
using OpenAI.

1. Optionally uses [@Wolfram\\_Alpha](#) API to solve a math query
2. Converts text to LaTeX & graphs to Python via [@OpenAI](#)
3. Feeds output to Manim to render video

See an example here: [instagram.com/tv/CDxi6CSDHBs...](https://instagram.com/tv/CDxi6CSDHBs...)  
[twitter.com/ShreenabhA/sta...](https://twitter.com/ShreenabhA/sta...)

10:35 PM · 21 Aug, 2020

9 replies 110 shares 776 likes

# Magnum

AI-Driven Math animations  
for all.

It is an Open Source Toolkit  
to turn Math problems into  
elegant video animations.

Check out more details at:  
[magnum.shreenabh.com](http://magnum.shreenabh.com)

# Epsilon Code

**Epsilon Code is a tool that can generate Python code and debugging information from plain-text description (in natural language) for you.**

**Check out more details at:  
[epsilon.shreenabh.com](https://epsilon.shreenabh.com)**



Greg Brockman   
@gdb



Python code that uses OpenAI to write and debug Python code:



Shreenabh Agrawal @ShreenabhA · 13 Oct, 2020

Introducing Epsilon Code!

Generate and debug Python code - with some help from AI

Using GPT-3 to redefine the way people code. Once and for all

Open source. Check out all details on our website:  
[epsilon.shreenabh.com](https://epsilon.shreenabh.com)

Thanks to [@gdb](#) and [@OpenAI](#) for giving me access 😊

1:14 AM · 17 Oct, 2020

15 replies 176 shares 769 likes

# Oldy-Goldy Club



Founded “Oldy Goldy Clubs” all over India to re-kindle the bond between the elderly and the young.



Watch the full presentation at Japan [here](#).  
Read the essay [here](#).

# **Research Publications**

- ‘Empirical assessment of efficiency of entropy source for random number generators using autocorrelation function test’ - World Scientific News.
- ‘The world beyond Electrons, Protons and Neutrons’ - Science Reporter.
- ‘Software Pseudo-Random Number Generators to Hardware True Random Number Generators: a transition in Data-Security’ - International Journal of Scientific Research in Computer Science Engineering and Information Technology.

# Research Publications

- ‘Mahila e-Haat: a gender-based e-commerce initiative’  
- IIM Indore NASMEI - Emerald Publishing.
- ‘Curriculum-based School picnics: a tool for enhancing Scientific Temper’ - Journal of Scientific Temper - CSIR.
- ‘Impact of Visual Aid in creating awareness about Sustainable Tourism in School students’ - Journal of Indian Education - NCERT.
- ‘Voice disorder in school teachers: an occupational hazard’ - The Botanique - UGC.

# Academic Achievements

- IOQP, IOQA 2020-21, and PRMO qualified.
- JEE Advanced 2021 - All India Rank 787.
- Kishore Vaigyanik Protsahan Yojana (KVPY) 2019 Fellowship holder for securing All India Rank 136 in the SA Examination.
- Secured All India Rank 3 in ICSE Board Class X Examination 2019.
- Certified in cloud computing by Google Cloud.
- Completed course on Physics of Semiconductors organised by IIT Kanpur.
- Completed course on “Light, Colour and Life” conducted by Korea Advanced Institute of Technology.

# Media Coverage

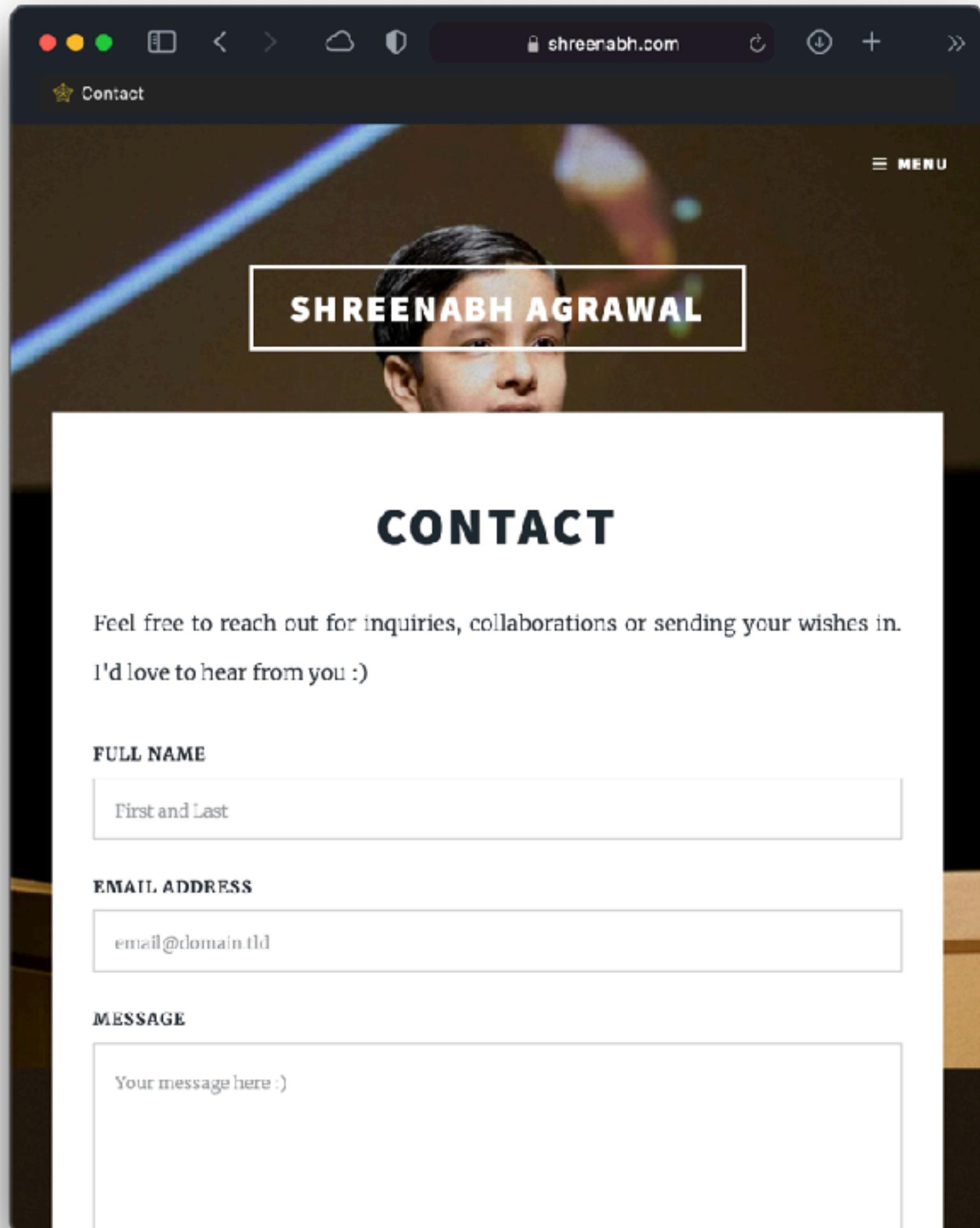
THE ASIAN AGE

Book of  
Achievers

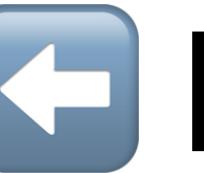
COUNTERVIEW.ORG

Teenager Today

# Contact



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contact form on my website.