

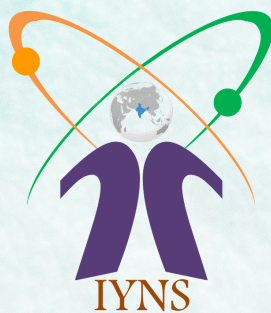


# NUCLEAR NEWS

## THE MONTHLY NEWSLETTER

SEPTEMBER 2020

*Indian Youth Nuclear Society (IYNS) is a non-profit organization with the aim to spread awareness about the benefits of nuclear energy among general public and to encourage our youth to learn and contribute to the nuclear energy program.*



### In this Issue...

Page 2 : Foreword

Page 3 : Highlights of this month

Page 12 : Our upcoming events



## FOREWORD

*"IYNS is a distinctive organization with its unique thought process, methods and actions. It has something for every age group, every individual – a student, a working professional or a retired person. Your background is not a barrier. All you need to be a part of IYNS is just 'curiosity'. Besides their own ideas, it welcomes and allows the general members to share their ideas and plans that are aligned with the society's work and which they feel can benefit the masses.*

*My association with IYNS is old yet new. Earlier I was a member, supporting and participating in some of the activities. However, my current involvement with the society as the General Manager, gives me a whole new perspective. I contribute as well as I learn. It gives me the platform and freedom to explore new avenues and areas. My team is supportive and gives everyone their due chance. As our President always says, "we work together to achieve our goals with fun".*

*Like every industry, Indian nuclear sector had its own share of struggles, success and failures, but it has not given up. It is still expanding and moving forward on the path set by its visionary creator and founder Dr. Homi J. Bhabha. As we embarked upon this journey, we realized that there is a lot that must be told about this industry; that people should know about their own country's development and strength. Our seniors and advisers agreed with us. IYNS intends to illuminate the masses about this technology, its benefits, its challenges and, its power along with the insights from inside the industry by its own people. I feel proud to be associated with such an organization and encourage our readers to interact with us, exchange ideas and engage to make some difference."*

*Ms. Sunaina Kundra  
General Manager (IYNS)  
gmanager.iyns@gmail.com*



# HIGHLIGHTS OF THIS MONTH

## "Being Informal With Dr. Srikumar Banerjee..."

### IYNS's original Tête-À-Tête Series

(30 August, 2020)



The IYNS team had a successful second episode of its original Tête-À-Tête Series: "Being Informal With..." on August 30, 2020, with Dr. Srikumar Banerjee (*Chancellor, Homi Bhabha National Institute; Former chairman, Atomic Energy Commission of India*). A recipient of the prestigious Padma Shree Award (2005), Dr. Banerjee started his scientific career by joining the Metallurgy Division of BARC in 1968 after obtaining a B.Tech degree with honors in Metallurgical Engineering from the Indian Institute of Technology Kharagpur. He spent his entire career at BARC where he also served as the Director from 2004 - 2010, following which he was appointed the Secretary of Department of Atomic Energy (DAE) in 2012.

During this session, Dr. Banerjee and Dr. Singh were also joined by Dr. Jatinder V Yakhmi (*Former Director, Chemistry Group, BARC*), Shri Shiv Abhilash Bhardwaj (*Former Chairman, AERB*) and Dr. Asish K.Ray (*Former Director, Beam Technology Group, BARC*). Our host engaged Dr. Banerjee in a lively discussion on his journey from the field of Engineering into Research, to which he heartily shared with us the course of his life at BARC Training School and how his experiences and interactions with fellow students and teachers helped him to transform his professional life. He stressed on how discipline and relentless practice is the key to excel in the field of research, and the importance of early success, albeit small, in boosting a professional's career. Furthermore, he shared with us his experience while pursuing his PhD and his experience at Max Planck Institute for Nuclear Physics during the early stages of his research career. Dr. Banerjee also shared with us his professional journey at BARC and his experience while working on the development project for the Pressure tube design of Indian Reactors.



Dr. Srikumar Banerjee  
Chancellor, Homi Bhabha National Institute, Mumbai  
Former Chairman, Atomic Energy Commission of India

Dr. Nitendra Singh  
President, Indian Youth Nuclear Society (IYNS)



Our host's conversation with Dr. Banerjee, Dr. Yakhmi, Shri Bhardwaj and Dr. Ray was a delightful mix of stories and events from Dr. Banerjee's personal life and his beliefs, his role as a student at the BARC Training School, his professional career and his excellence in carrying out numerous crucial tasks at BARC that directly affected the Indian Nuclear Programme.



In conclusion, Dr. Singh asked Dr. Banerjee to nominate three Indian scientists whom we should invite for our future episodes at "Being Informal With...". Dr. Banerjee nominated **Dr. D.D. Bhawalkar** (*Raja Ramanna Centre for Advanced Technology*), **Shri S.C. Chetal** (*Indira Gandhi Centre for Atomic Research*) and **Shri S.K. Mehta** (*President, Indian Nuclear Society*).

We would like to thank Dr. Srikumar Banerjee and our guests once again for taking out the time to share these inspiring stories with us. We also express our sincerest gratitude towards our viewers for supporting this venture. We look forward to your active participation in our upcoming episodes as well!





## "Being Informal With Dr. Rajagopala Chidambaram..." IYNS's original Tête-À-Tête Series (27 September, 2020)

After the entertaining and thought provoking discussion with Dr. Srikumar Banerjee, the IYNS team had the honour to meet and interact with the man behind India's Nuclear deterrence - Dr. Rajagopala Chidambaram, for the third episode of its original Tête-À-Tête Series: "Being Informal With..." on September 27, 2020. Apart from his role as the Former Principal Scientific advisor to the Indian Government and the Former Chairman of the Atomic Energy Commission of India, Dr. Chidambaram is a highly decorated Indian Physicist, who is known for his integral role in India's Nuclear Weapons Programme. A recipient of the prestigious Padma Vibhushan (1999) and the Padma Shree Award (1975), Dr. Chidambaram played a key role in developing India's nuclear weapons by being a part of the team conducting the first Indian nuclear test (Smiling Buddha) at Pokhran Test Range in 1974. He gained international fame when he led and represented the team of the Department of Atomic Energy (DAE) while observing and leading efforts to conduct the second nuclear tests (code named Operation Shakti) in May 1998.

During this session, Dr. Chidambaram and Dr. Singh were also joined by Dr. Satinder Kumar Sikka (Former Scientific Secretary to the Principal Scientific Advisor of the Government of India and Former Director of Condensed Matter physics Group, BARC), Dr. Milan K. Sanyal (Former Director, Saha Institute of Nuclear Physics and Co-Chairman of the India-Japan Science Council), Dr. Vinay Kumar Bhatia (Head, Radiobiology Division, BARC) and Shri. Kiran K Doshi (Former Ambassador to Austria and India's envoy to IAEA Former Chairman, Atomic Energy Education Society).





Our host started off the conversation by asking Dr. Chidambaram to share his scientific journey from pursuing BSc Honors Physics at Presidency College, to the beginning of his research career at IISC, Bangalore, which ultimately led him to join the Bhabha Atomic Research Center (BARC), Mumbai for conducting research on hydrogen bonding. This was followed by an extremely interesting and informative discussion among Dr. Chidambaram, Dr. Bhatia and our host on the importance of Dr. Chidambaram's research in the field of Radiobiology. It was a pleasure to listen to all the inspiring stories about Dr. Chidambaram and his role as a mentor to our accompanying guests Dr. Bhatia, Dr. Sanyal and Dr. Sikka.

Dr. Singh also engaged our guest in a lively conversation about the events that lead and followed the Peaceful Nuclear Tests at Pokhran. Dr. Chidambaram shared with us how **nuclear explosions can be used for peaceful purposes** - like the first test (*code named "Smiling Buddha"*) was planned for efficiently breaking copper ores underground to recover the metal. He also highlighted the multi-disciplinary role of BARC in conducting the second Pokhran Test, which required active and efficient participation of the personnel to safeguard local population while conducting nuclear tests and the active co-operation with DRDO during the tests. Furthermore, Dr. Chidambaram humbly explained the struggles faced by the Indian Government and BARC in coping with the International Restrictions that were posed on the nation after the first Pokhran Test, and how the nation used this opportunity to develop a robust and self-reliant Nuclear Program. He was also joined by **Shri Kiran K Doshi** who mentioned the notable contributions of Dr. Chidambaram and his team in establishing International Co-operation to ensure the theory of **"Nuclear Deterrence"** as well as gain international acceptance for India to become a Nuclear State.



One of the crucial questions asked by Dr. Singh was regarding how the Indian Youth could contribute to enhance the "knowledge economy" and "technology foresight" of the nation. To this, Dr. Chidambaram responded by emphasizing on the need for "concept transfer", followed by re-innovation, as well as the need to frequently review fast developing technologies all around the world to adopt and modify the existing knowledge base.



In conclusion, Dr. Singh asked Dr. Chidambaram to nominate Indian scientists which we should invite for our future episodes at Being Informal With... Dr. Chidambaram nominated Dr. K. VijayRaghavan (*Principal Scientific Advisor to the Government of India*), Dr. K. Sivan (*Chairman, ISRO*), Dr. Tessy Thomas (*DRDO*) and Prof. S.M. Chitre (*formerly of TIFR, now in CEBS, a leading astrophysicist*).

We would like to thank Dr.Chidambaram and our guests once again for taking out the time to share these inspiring stories with us. It was indeed a pleasure to witness such a lively and meaningful interaction among some of the greatest minds of our nation.

We also express our sincerest gratitude towards our viewers for supporting this venture. We look forward to your active participation in our upcoming episode of Being Informal With Dr. Ravi Bhushan Grover (*Emeritus Professor, Homi Bhabha National Institute and Member of the Atomic Energy Commission of India*), which is to be aired on the IYNS YouTube Channel <http://youtube.com/c/IndianYouthNuclearSocietyIYNS> on October 25, 2020, at 17H30 (IST)!



## Round Table Interview with WiN-India (20 September, 2020)



After the launch of Women in Nuclear or WiN - India, several queries were received by us seeking more information about WiN - India. To address these queries, the IYNS team planned an interactive session with the founding Board Members of WiN-India.

Co-hosted by Ms. Sunaina Kundra (*General Manager, IYNS*) and Dr. Vaishnvi Tiwari (*Editor-in-chief, IYNS*), this Round Table Interview session was a direct conversation with the Board members, providing insight about the organization's perspective, mission, goals, objectives and future activities.

The WiN-India Board consists of learned experts working in various domains such as research, academics, industry, policy of the Indian nuclear industry. During this session, our hosts also asked the Board Members questions concerning the outlook of WiN-India on focal points such as the role of Nuclear Technology to combat Global Climate Change, the contribution of the Indian Education Sector in promoting participation of women in the nuclear industry, and the Interdisciplinary role of Nuclear Industry in present day world.

It was an absolute pleasure for the IYNS team to hear them bring forward their individual experiences in their respective journeys in the nuclear sector and to see them use these to strengthen the foundation of this organization.



Board Members of Women in Nuclear - India (WiN-India)





## **WINS Academy Training**

### **"Integrating Cybersecurity with the Security Programme"**

**(22-26 September, 2020)**

IYNS, together with the Amity Institute of Nuclear Science & Technology (AINST) and the World Institute for Nuclear Security (WINS) Academy, organized a five-day Online Training Course on Integrating Cybersecurity with the Security Programme from September 22 -26, 2020.

The five day session was conducted by leading Nuclear Security Experts from National and International Institutes like Oakridge National Laboratory (ORNL) and Indira Gandhi Centre for Atomic Research (IGCAR). It included interactive sessions on the concepts of cyber security, physical protection systems and insider threats, as well as group exercise activities based on cyber security.

The inaugural day of the training included a **Keynote speech** on the *"Fundamentals of cyber security for nuclear facilities"* by Dr. SAV Satya Murthy (Former Director IGCAR), followed by an interactive session on *"Physical Protection Systems"* delivered by Mr. Dave Lambert (Gregg Protection Services). The following days witnessed participants divided into groups for taking part in the **Cyber Security Exercises**, the results of which were delivered at the end of the training. The event also witnessed a spirited **Panel discussion** co-ordinated by Prof. A.K. Jain (Advisor AINST) on *"Exploring the relationship of insider threats and physical protection systems to cybersecurity"* among distinguished guests such as Dr. G P Srivastav, Dr. SAV Satya Murthy, Shri Ranajit Kumar, Shri Munish Kumar (IDSA) and Dr. M. Sai Baba. The discussion centered around the status of the developments and progress made in ensuring physical protection systems, insider threats and cybersecurity issues. It focused on how Cybersecurity would become very crucial not only for nuclear but also for all the industries and that there is a need to develop expertise in this domain. The discussion also witnessed active participation from the students.



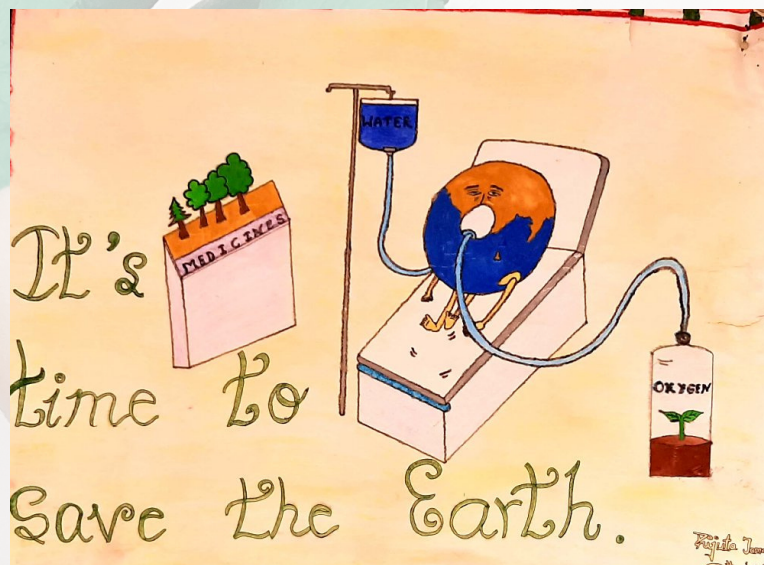


## New entries for the Nation-wide Plantation Drive (September, 2020)

Below are some of the pictures sent to us in support of the launch of the Nation-Wide Plantation Drive on August 23, 2020. The IYNS team thanks all our members for their enthusiasm and for supporting this noble cause.









# OUR UPCOMING EVENTS

## Getting to know our scientists better..



The IYNS team is proud to present its guest for the upcoming **fourth episode** of our chat show - "**Being Informal with...**" which is to be aired on its YouTube channel on October 25, 2020. Our goal is to air interactive sessions with the eminent scientists of our nation, every month on our YouTube channel.

As the name suggests, the talk will be informal and very casual. Through these sessions, our host Dr. Nitendra Singh brings to you their non scientific/technical side along with their experiences, life lessons and their advice.

Our guest for this session is **Dr. Ravi Bhushan Grover** (*Emeritus Professor, Homi Bhabha National Institute and Member of the Atomic Energy Commission of India*). An Indian nuclear scientist and a mechanical engineer by profession, Dr. Grover is the **founding Vice Chancellor** of the **Homi Bhabha National Institute, Mumbai**. A well known proponent of nuclear energy in India, he is an **editor** of the **International Journal of Nuclear Knowledge Management**. Furthermore, Dr. Grover is one half of the **Kakodkar-Grover** duo who are chiefly responsible for the success of the **Indo-US negotiations** that culminated in the **123 Agreement** signed in **July 2007**.



We invite all our followers to actively participate in the sessions and also bring them the opportunity to ask their own questions to our guests by posting them on our website <http://iyns.in/being-informal-with/>.



## Its time for fun!

IYNS, in association with Shiv Nadar School, is organizing an **Energy Boot Camp** from **November 6 - 8, 2020**. The three-day Boot Camp features various fun-filled activities and interactive sessions for students of all ages, to help them understand more about energy and the environment.



The **preliminary phase** of Energy Boot Camp is to commence from **October 6, 2020**. During this phase, the students from the participating schools will compete in the Creative activities, Interactive Experiment sessions and the Inter-School Competition. The Inter-School Competition has three rounds consisting of quizzes, public interaction through video making and technical group projects. The final teams will enter the competition Finale, where they will participate in the '**Youth Parliament**' along with the eminent experts and panelist from various fields. **The winning team will be eligible for the prestigious Dr A.P.J. Abdul Kalam fellowship of IYNS.** For more information visit our webpage <http://iyms.in/energy-boot-camp/>



# MEET OUR TEAM

**PRESIDENT**

Dr. Nitendra Singh  
[president.iyns@gmail.com](mailto:president.iyns@gmail.com)

**GENERAL MANAGER**

Ms. Sunaina Kundra  
[gmanger.iyns@gmail.com](mailto:gmanger.iyns@gmail.com)

**IT MANAGER**

Mr. Samyak Munot  
[itmanager.iyns@gmail.com](mailto:itmanager.iyns@gmail.com)

**MEDIA MANAGER**

Mr. Jehaan Nicholson  
[mediamanager.iyns@gmail.com](mailto:mediamanager.iyns@gmail.com)

**EDITOR**

Dr. Vaishnvi Tiwari  
[editor.iyns@gmail.com](mailto:editor.iyns@gmail.com)



# REACH OUT TO US!

Join us to help our cause to support Nuclear Energy!

To register at IYNS : <http://iyns.in/iyns-registration/>

For more information visit <http://iyns.in/contact/>



Handmade 'Rangoli' made by students of Nutan Mahavidyalaya, Maharashtra



[contact.iyns@gmail.com](mailto:contact.iyns@gmail.com)



<https://www.facebook.com/YouthIYNS/>



<https://www.instagram.com/iyns.in/>



<https://twitter.com/YouthIyNs>



[LinkedIn.com/company/indian-youth-nuclear-society-iyns](https://www.linkedin.com/company/indian-youth-nuclear-society-iyns)



<https://www.youtube.com/c/IndianYouthNuclearSocietyIYNS>