



PRESENTS

Special Session on

AeroSpace as a Hobby & Career

"Explore a primary field of engineering concerned with the development of Aircraft and Spacecraft"

September 15, 04:00 pm IST

FOR STUDENTS OF CLASSES
5TH - 12TH

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KNOWLEDGE AND AWARENESS MAPPING PLATFORM

KNOWLEDGE SESSION 2022: EPISODE 11

ORGANISED BY: KNOWLEDGE AND AWARENESS MAPPING PLATFORM

A KNOWLEDGE ALLIANCE OF



Date: 15th September 2022

Topic: Aerospace as a Hobby & Career

Organized For: Class 5th – 12th

Category: Career & Professional Development

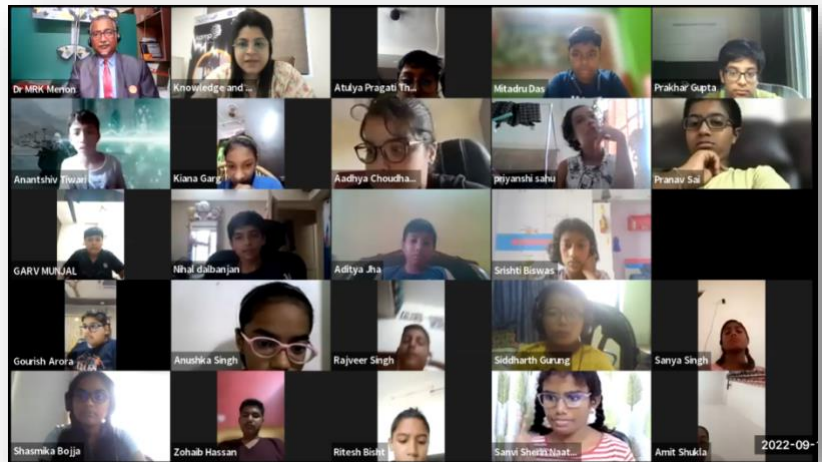
No. of Participants: 800+ students from different schools across India

Speaker/Presenter: Dr MRK Menon (President of the Model Rocketry Society, Adviser Aero club of India and Aero modelers association of India)

Overview:

On September 15th, KAMP conducted its 11th Special Workshop on "Aerospace as a Hobby & Career" with 800+ students from 5th to 12th standard from different schools across India as participants. The aim of this workshop was to help the students understand the difference between career choices related to Aerospace, Aeromodelling and Aeronautical Engineering.

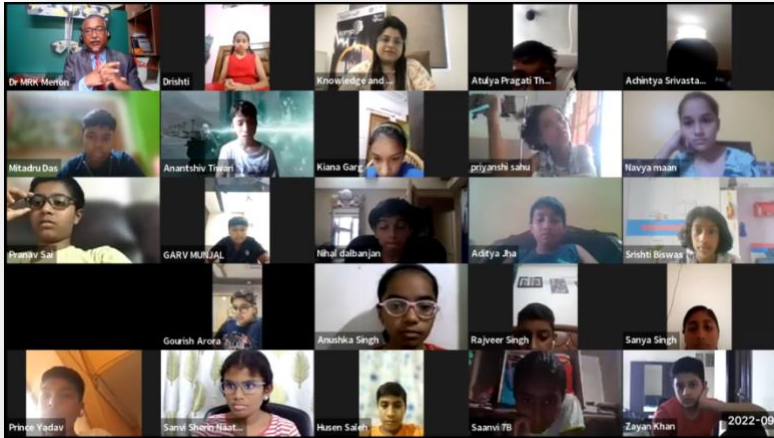
The purpose of KAMP's fortnightly workshops is to help students develop creativity, meaningful learning, and critical reading and thinking abilities that bring out their inherent skills. The vision of KAMP is to identify and capture scientific and technological temperament in students to make India a global leader in the field of Science, Technology and Humanities. By doing this, KAMP aims to help students become productive and successful citizens by inculcating scientific temperament within them.



It is very important for students to get a broad understanding and awareness of such career fields as well as the currently blooming ones. It gives them an opportunity to think outside of the box and test their skills, evaluate themselves accordingly, or in other words, prepare for a better future professionally in advance.

KAMP believes that by exposing students to such topics from experts in such fields, they will become aware of real-life career opportunities, understand their personal interests, evaluate their skills within the given area, and achieve their best in the most desirable way.

Likewise, this session was facilitated by Dr MRK Menon (President of the Model Rocketry Society, Adviser Aero Club of India and Aero Modellers Association of India), a pioneer and leader in the field of "Aero-Modeling" (Model Rocketry, Drone Technology, Robotics & Space Technology" and has trained more than 1 lakh students in India, UAE, Bahrain, Nepal, Malaysia, and Nigeria.



So, what exactly is aerospace? Today, most engineering colleges provide a course on aerospace for 4 years, just like a BTech, or bachelor of engineering degree, that can be enrolled right after class 12th. Such a course deals with knowledge related to

international space stations like satellites, space shuttles, or anything else that takes us further into space. Similarly, if you are interested in aeronautical engineering; you can opt for it right after completing your 12th. You can complete a bachelor's degree in engineering with a specialisation in aeronautical; which provides you with knowledge related to designing, building, and flying aeroplanes, helicopters, and gliders that fly below 60,000 feet.

During the session, Dr. Menon mentioned that the concept of space can vary according to different space research organizations. Let's say if we were to draw a straight line, up at 100 kilometres, parallel to where we are, that line is called the Karman line. So, in general, 100 kilometres from Earth, space starts. While, according to NASA, space begins at 92 kilometres.

Now, if we come to the hobby aspect, a hobby is something that we do in our spare time when we want to relax. We want to use our minds and our hands to do something creative for us to relax. It is important to have a hobby that has nothing to do with our studies, such as stamp

collecting, electronics, gaming, and coin collecting, which are basic hobbies. The real fun starts when you do something like woodwork, robotics, aero-modelling, or rocketry.

If we talk only about aerospace as a hobby, according to Dr. Menon, aeromodelling is the king of all hobbies; it is one of the greatest because it provides early exposure to electrical engineering, computer science, chemical engineering, and various other related fields. In aeromodelling, we can design, build, and fly different types of aeroplanes.



As we know, students are curious and like to explore and experiment with how different things work. They can choose from plenty of non-

flying as well as flying model kits that are easily available on the market. They can purchase any model, such as the Rafale, the Boeing 747, or even the Cessna models.



After aeromodelling, you can move to remote-controlled aircraft, for which you need a transmitter, receiver, and appropriate aeroplane models. The issue with them can be their availability, as some models like the "Riptide Rocket" are not

easily available and cost about \$50 plus another \$50 for their delivery. This model additionally requires a special engine, which is sold by Amazon, but it cannot be shipped to India, and without that engine, the rocket cannot be launched.

Still, there are various other rocketry models that come with a launch button, safety cap, batteries, etc. You can also buy a 3D printer and design your own models using the respective software and get your 3D model manufactured.

At the end of the session, Dr Menon even gave real-life examples of individuals who have been associated with aerospace. He called them his inspirations and shared relevant details about Dr

A.P.J Abdul Kalam, Dr G. Madhavan Nair, Kalpana Chawla, Anil Menon, Senator John Glenn, Dr Sally Ride, Neil Armstrong, Buzz Aldrin, and even Michael Collins.

Organised By:

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(KAMP Operations and Coordination Office)

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