

Documenting Indo-French Scientific & Technological Partnership

The blog <http://hos.ifindia.in>, dedicated to the history of Indo-French scientific and technical partnership, by astronomer and science museum curator, Mr Pranav Sharma, was launched by the Embassy of France/Institut Français India on 28th February 2021 on occasion of India's National Science Day.

Did you know that the Indian Railways adopted the 25 KV AC system of electrification as a standard in 1957 and the French National Railways (SNCF) provided initial technical assistance and consultancy for the same? Today, France continues to boost Indian Railways by sharing expertise on world-class stations and providing the most powerful locomotives to run on Indian rails, the WAG-12!

Did you know that France was the third country to place an object, the A1 satellite *Astérix*, in the Earth's orbit in 1965? India's space ties with France had begun much earlier, in 1963, when Dr Vikram Sarabhai, the father of the Indian Space programme met Jacques Blamont, the Founding Technical Director of the French Space Agency (CNES-Centre National d'Études Spatiales). CNES went on to support ISRO's sounding rocket program during its nascent stage. Later, the Ariane Passenger Payload Experiment (APPLE), the experimental communication satellite was successfully launched by Ariane-1, from Kourou, French Guiana on June 19, 1981. This became an important milestone in India's space programme. Rocket propulsion technology was also part of France's support to the Indian space programme.



Jacques Blamont & Vikram Sarabhai at Thumba, 1963. Credit-CNES



APPLE satellite being carried on a bullock cart for telemetry test. Photo credit-ISRO

India and France have been working together for several decades to achieve common developmental goals. It is noteworthy that several scientific advancements in India have enjoyed unequivocal support from France. India, for its part, has provided invaluable resource support to France.

To preserve the heritage of this longstanding collaboration, the Embassy of France/Institut Français in India have initiated a project to document the scientific partnership between India and France across disciplines. The prime objective of the project is to revisit and document the common history of science and technology between India and France. The project celebrates decades of cooperation between India and France since the beginning of scientific exchanges in the early enlightenment era. It is a history of friendship told through personal memoirs and tales of triumphs and accomplishments presenting the human story behind this great enterprise.

The project intends to develop a virtual archive in the form of a blog that would include scholarly and popular writing, multimedia content, and public access archival documents. Additionally, several virtual exhibitions are envisaged during the project. A coffee table book will be released and a national exhibition will be organized at the end of the project.

This project began as an extension of the exhibitions developed in collaboration with Alliance Française of Hyderabad, Institut Francais en Inde and the CNES in 2020. These were hosted at WINGS-India 2020 in Hyderabad and International Space Conference & Expo 2020 in Bangalore.

In the context of this initiative, driven by France’s scientific cooperation network in India, H.E. Mr Emmanuel Lenain shared, *“It is befitting that France and India’s rich history of scientific and technological cooperation, dating back to the 1950s is being seen through the eyes of a young Indian astronomer, Pranav Sharma. For, this repository of knowledge and experience belongs to the generations ahead. It is most apt to present this extraordinary story on India’s National Science Day, which commemorates Nobel Laureate Prof CV Raman. Interestingly, the term ‘Raman Effect’ was first used by French physicists in 1928, when French scientist Yves Rocard first took note of C.V. Raman’s discovery.”*

The themes of the initiative include:

1. Space Sciences
2. Health Sciences (Epidemiology and Immunology)
3. Astronomy & Astrophysics
4. Nuclear Science & Technology
5. Biodiversity & Cartography
6. Visual Analytics (Social Sciences, Geography, and Mathematical Modelling)
7. Data Sciences and Information Technology
8. Economics
9. Aviation
10. Technological Application & Applied Sciences

HG Wells very succinctly called human history as being in essence a history of ideas. And the history of science is the history of humankind’s unity, of its sublime purpose, of its gradual redemption. Through this project, India and France will begin the formidable task of piecing together the glorious scientific history of the two countries. To not only look back in wonder and awe but inspire the future to take the tradition forward.

ABOUT THE CURATOR

The project is being curated and led by astronomer and science historian, Pranav Sharma, a national award winning science communicator who curated India’s first interdisciplinary Space Museum in Hyderabad. He was awarded for his work on the museum and India’s space history.



Henri Cartier-Bresson’s photograph of fairing of the French Centaure rocket in 1968. Credit: CNES