

# **CNRS IN INDIA**

# SEPTEMBER-OCTOBER 2024

# A word from the Delhi Desk



Come September and October, momentum picks up. Students going back to class rooms, scientists back to the labs, researchers visiting their collaborators and scientific meetings... All this started happening also at CNRS India, and with Indo-French collaborators.

However, we take a pause, to think of, and to pay our tribute to one of the finest human beings, a great scientist and a longstanding collaborator with CNRS. Yes, Professor Rohini Godbole left us last week.

Professor Rohini Godbole, an eminent Indian theoretical physicist, has left an indelible mark on particle physics and academia. Known for her pioneering work in high-energy physics and particle phenomenology, she was an influential voice in scientific communities worldwide. Her close collaboration with Dr. Fawzi Boudjema, LAPTh, CNRS, Annecy, under the CNRS International Associated Laboratory (LIA), strengthened ties between India and France. Professor Godbole's contributions to Higgs boson studies, supersymmetry, and QCD earned her numerous accolades, including the Padma Shri and the French Ordre National du Mérite. A tireless advocate for women in science, she broke barriers and championed gender equality in her field, inspiring countless young scientists. Her legacy endures through her groundbreaking research, her students, and the global scientific connections she fostered.

Her friendship and her contributions to CNRS-India cooperation will always be remembered.



Europe R&I Info Day 2024 at IISER Pune on 9<sup>th</sup> October 2024





R&I Regional Visit to Pune on 8<sup>th</sup> October 2024





Week of the CNRS representative offices abroad 23-27 September 2024



Visit to NIOT on 24th October 2024

# **CNRS IN INDIA**

# R&I Regional Visit to Pune and Horizon Europe R&I Info Day 2024

The Director of the Bureau participated in the Research and Innovation (R&I) Regional Visit to Pune organized by the Delegation of European Union to India and Euraxess India on 8<sup>th</sup> October 2024. He visited the four specialized institutes in Chandigarh and presented the bilateral R&I and funding opportunities. The Institutes visited were:

- Venture Center
- CSIR National Chemical Laboratory (NCL)
- C-DAC: Centre for Development of Advanced Computing
- Inter-University Centre for Astronomy and Astrophysics (IUCAA)

The Director also participated in the Horizon Europe R&I Info Day 2024 organized by Delegation of European Union to India and Euraxess on 9<sup>th</sup> October 2024 at IISER Pune. The event gave strong testimony to the excellent EU-India partnership in R&I. It featured lively exchanges between participants and representatives from European Union to India and Euraxess. More than 150 researchers and students EURAXESS India, EU in India, Marie Skłodowska-Curie Actions, and European countries, expanding opportunities for Indian researchers and innovators within the EU's Horizon Europe programme and bilateral schemes offered by European countries.

# Workshop: Hydrodynamics at small scales: from soft matter to bioengineering

An International Workshop, entitled "Hydrodynamics at small scales: from soft matter to bioengineering," was organized on 25-27 October 2024 within the framework of International Research network IRN-HYDROMMBI, at Indian Institute of Technology Madras.

The primary objectives of the workshop were:

- Consolidate and strengthen collaborations through scientific exchanges
- Obtain scholarships intended for the co-supervision of Master students, Doctorate and Postdoctorate (Raman-Charpak, Cefipra, Horizon Europe)
- Welcoming Professors in the two countries, which will facilitate the mobility and potential construction of Research projects
- Enrich our respective training courses (joint International Master)

# Visit to the National Institute of Ocean Technology (NIOT) at Chennai

The director of the CNRS India Bureau met with the director of NIOT Prof. Balaji Ramakrishnan on the 24th October 2024. The meeting focused on NIOT projects within the Deep Ocean Mission (Vertical 3 and Vertical 6). Vertical 3, focuses on deep-sea biology (analysis of microbes and DNA extraction, pressure storage, biodiversity). Vertical 6, investigates, in particular on the construction of a network of marine stations and the development of human resources towards the conception of 'Advanced Marine Station for Ocean Biology (AMSOB).

NIOT is piloting this new project in India in collaboration, initially, with a network of institutions of the Ministry of Earth Science. Discussions are underway towards the implication of the French research organizations and universities involved in marine sciences, including CNRS, IFREMER, Sorbonne University and University of Montpellier. As part of the development, a large number PhD fellowships involving various academic institutions would be instituted.

Srini Kaveri recalled the Indo-French initiatives over the last ten years, and of the 3 workshops (Bangalore, Andaman, and Banyuls sur Mer) conducted in the framework of the Centre of Excellence in Marine Biotechnology. He insisted on the need to establish several individual collaborations between Indian and French scientists in different aspects of marine biology, using the tools proposed either by CEFIPRA, CNRS or other research organizations of the two countries. SK presented the tools of CEFIPRA and CNRS. These collaborations would constitute the essential basic elements for the effective functioning of the future AMSOB.

# **NEWS HIGHLIGHTS**

# The EU and CSIR India announce co-funding to foster EU-India research cooperation under the MSCA

The European Union and the India's Council of Scientific and Industrial Research (CSIR) have launched a new co-funding initiative for the Marie Skłodowska-Curie Actions (MSCA) Staff Exchanges, part of the EU's research and innovation programme, Horizon Europe.

Through this scheme, CSIR will top up selected MSCA Staff Exchanges projects, enabling its institutes to engage in joint research projects with European and international partners and second their scientific and technical staff to European research organisations for knowledge sharing and research activities. This will promote a balanced researcher mobility and long-term collaborations......read more

#### France, India to set up aeronautics cluster; campus for aeronautics, space training

France and India are collaborating to establish an aeronautics cluster and an Indo-French campus for professional training in aeronautics and space. This initiative aims to boost their long-term strategic partnership, particularly in defence and aerospace, and includes efforts to develop a sustainable aviation fuel supply chain....read more

# **ANRF Launches Initiatives for Early Career Researchers and Electric Vehicles**

India's National Research Foundation (ANRF) launched two major initiatives on 14 October 2024: the Prime Minister Early Career Research Grant (PMECRG) and the Mission for Advancement in High-Impact Areas - Electric Vehicle (MAHA-EV) Mission. These initiatives aim to nurture young researchers and drive innovation in electric vehicle technologies, aligning with the Atma Nirbhar Bharat vision of reducing import dependency and positioning India as a global leader in EV technology.....read more

## **DRDO Funds Deep-Tech Projects to Boost Military Innovation**

The Defence Research and Development Organisation (DRDO) announced a new initiative to fund five deeptech projects, each receiving up to Rs 50 crore on 18 October 2024. This effort aims to advance cutting-edge military technologies, promote indigenisation of defence products, and strengthen national security. The initiative is supported by the €11 billion fund from the Budget 2024-2025, dedicated to transformative research in the defence sector..... read More

#### India Strengthens High-Performance Computing with PARAM Rudra Supercomputers

Prime Minister Modi virtually launched three indigenously developed PARAM Rudra supercomputers under the National Supercomputing Mission (NSM) on 20 October 2024. Deployed in Pune, Delhi, and Kolkata, these supercomputers will enhance research in areas such as astronomy, material science, atomic physics, and cosmology, showcasing India's growing capabilities in high-performance computing. Read More

# India will have its own Space Station by 2035, which will be known as "Bharatiya Antriksh Station"

ISRO and Department of Biotechnology Sign Landmark MoU, Ushering in New Era of Space and Biotech Innovation. The MoU outlines several key initiatives, including the establishment of a Bharatiya Antariksh Station and the unveiling of the BioE3 (Biotechnology for Economy, Environment, and Employment) Policy. This policy aims to foster high-performance biomanufacturing in the country, with a goal of reaching a \$300 billion bioeconomy by 2030. The collaboration will focus on areas such as microgravity research, space biotechnology, space biomanufacturing, bioastronautics, and space biology....read more

# Principal Scientific Advisor A K Sood Unveils Thematic Hubs and Technical Groups under the National Quantum Mission to Drive India's Quantum Revolution

In a major step for India's National Quantum Mission (NQM), selected premier institutions to establish Thematic Hubs (T-Hubs) were on 30 September 2024 in New Delhi.

These hubs, dedicated to propelling quantum research and innovation, will help position India at the forefront of the global quantum technology revolution, reinforcing the country's leadership in the most advanced scientific frontiers.....read more

# Cabinet approves India to Join International Energy Efficiency Hub by signing the Letter of Intent

India will join the International Energy Efficiency Hub (Hub), a global platform dedicated to fostering collaboration and promoting energy efficiency worldwide. This move solidifies India's commitment to sustainable development and aligns with its efforts to reduce greenhouse gas emissions.....read more

# **IIT Indore Researchers Develop Affordable Cancer Detection Device**

The Indian Institute of Technology, Indore, (IIT-I) has developed a compact and cost-effective cancer screening device using photoacoustic technology that will facilitate the detection of cancer in its early stages among patients.....read more

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