« Dear Colleagues from India and France,

The year 2017 has started as rich and intense as the last one ended, with a lot of activities and projects in the field of Indo-French science and technology cooperation. Amongst them, I would like to particularly mention:

The visit of the French Minister of Foreign Affairs, H.E. Jean-Marc Ayrault, at the beginning of January. The Minister reaffirmed the commitment to significantly increase the exchanges of students and researchers between India and France. He also witnessed the signature of an agreement between ISRO and the French space agency CNES, which will take Indo-French space cooperation to new heights.

At the same time, the French Nobel Laureate Prof. Serge Haroche (Nobel laureate in Physics 2012) came to India as one of the 10 Nobel laureates invited to be part of the Nobel Prize Series organised on the side of the Vibrant Gujarat Summit.

Later on, another French Nobel Laureate, Professor Jean-Marie Lehn (Nobel Prize for Chemistry, 1987), came in February and received the Honoris causa honour of the Institute of Chemistry Technology (ICT) of Mumbai.

Last but not least, a dedicated “PhD Tour” was organised for the first time taking place alongside the traditional Admission Tour, and gathering representatives of 11 French universities invited to visit some of the best higher education and research institutions in India and to meet Indian students.

More details about these events and much more are presented in this newsletter, illustrating the dynamism of the Indo-French cooperation in science, technology and academics partnerships.

Finally, let me introduce you Mrs Meenakshi Singh, our new Scientific Coordinator in Delhi, who joined us in January following the departure of Charu Kapil who left for new adventures. All the best to both of them!

Bonne lecture ! »

Dr. Philippe Arhets
Science Counsellor

Visit of Prof Serge Haroche as guest of the Nobel Prize Series in India

French Nobel Laureate Serge Haroche, who was awarded the Nobel Prize in Physics in 2012 for his work on quantum physics, was in India in early January to take part in several events and conferences.

He first gave a lecture at the 104th Indian Science Congress held in Tirupati on "Power and Strangeness of the Quantum; decoherence, quantum technology in physics".

Pr. Haroche with nine other Nobel Laureates was the guest of the first Nobel Prize Series in India, co-organised by the Nobel Foundation and the Department of Biotechnology, Govt of India. This event was inaugurated at the occasion of the Vibrant Gujarat Summit held in Gandhinagar from January 9 – 13, 2017, in presence of Hon'ble Prime Minister Narendra Modi. The Nobel lecture Series aimed at spreading science awareness in the country by inviting outstanding scientists to give conferences and share their life stories as an inspiration.

Photo: Serge Haroche
S&T takeaways from the visit of French Foreign Minister H.E. Mr. Jean-Marc Ayrault

French Minister of Foreign Affairs and International Development, H.E. Mr. Jean-Marc Ayrault came to India from 8th to 11th January 2017 for a visit that took him to Bengaluru, Ahmedabad and New Delhi. The aim of his visit was to strengthen the strategic partnership between India and France in various sectors, including science, technology and education.

On 8th January, addressing a gathering of students and academics at the Alliance Française in Bangalore, the Minister launched the Bengaluru chapter of the France Alumni platform that was officially inaugurated in India in September 2016. On this occasion he stressed the importance of student exchanges as a key dimension of the bilateral partnership, and a priority for the French government, as he announced the objective to boost the number of Indian students coming to France to 10,000 in 2020.

In Alliance Française, Mr. Ayrault was also given a demonstration of the Gaming Lounge, a dedicated space dedicated to French learning using gaming and interactive videogames developed by the French multinational Ubisoft present in India. He also witnessed the signing of an MoU between Studialis and iNurture to establish a campus of excellence in Bengaluru, bringing together for the first time French institutes specialising in design, arts, and creation.

On Monday 9th, Mr. Ayrault paid a visit to NUMA Bengaluru, a start-up accelerator born out in 2015 from a joint-venture between Indian company Cobalt and French accelerator NUMA. It hosts, among others, the Airbus Bizlab, a global aerospace business accelerator created by Airbus, which launched its second season at this occasion.

Following this, the Minister visited the Indian Space Research Organisation (ISRO) along with Jean-Yves Le Gall, President of the French Space Agency (CNES). They were received by Mr. A.S. Kiran Kumar, Chairman, and it was the occasion to conclude a new partnership between the two agencies. In particular, Mr. Rahul Narayan and Mr Jean-Yves Le Gall signed an agreement for equipping Axiom Research Lab’s lunar rover with two latest-generation CASPEx micro-cameras, developed by CNES in partnership with French firm 3DPlus.

Thereafter, Mr. Ayrault met Mr. Rahul Narayan, CEO of leading Indian “NewSpace” start-up, Axiom Research Labs. This start-up put forward TeamIndus, the only Indian team competing for the Google Lunar XPRIZE, a global competition for engineers and entrepreneurs to develop low-cost methods of robotic space exploration. As TeamIndus races to design an all-terrain rover by end-2017 for the lunar mission, the French Space Agency (CNES) has agreed to provide the cameras. France is thus playing a key role in the Indian space sector.

Visit of Prof. Jean-Marie Lehn, Nobel Laureate in Chemistry, to Mumbai and Pune

Professor Jean-Marie Lehn, who received the Nobel Prize in Chemistry in 1987 for his work on cryptands and supramolecular chemistry, was in India on 7-11 February 2017. He was the PhD supervisor of Dr. Jean-Pierre Sauvage, Nobel Laureate in Chemistry in 2016. The main purpose of his visit was to take part in the meeting of the Reliance Innovation Council of which he has been a member for many years.

The days before, Prof. Jean-Marie Lehn delivered a lecture at the Institute of Chemical Technology (ICT), Mumbai, on the topic: “From Matter to Life: Chemistry ? Chemistry !” to an audience of Masters and PhD students, and participated in the graduation ceremony. On this occasion, he was awarded a Doctorate Honoris Causa from the institute by Maharashtra Governor C.V. Rao. This visit was also the opportunity to invite French companies present in India such as L’Oreal, Total Oil, Solvay, Dassault Systèmes, Roquette, and Gatéfossé. He then went to Pune on Saturday 11th February to visit the Indian Institute of Science Education and Research (IISER) and the CSIR-National Chemical Laboratory.

Photo: Prof. Jean-Marie Lehn (centre) at Institute of Chemical Technology, Mumbai, Dr. R.A. Mashelkar, Chancellor of ICT, Maharashtra Governor C.V. Rao, Dr. G.D. Yadav, Vice Chancellor of ICT
NGRI, Hyderabad and BRGM renew long-term association for Groundwater Research

The National Geophysical Research Institute (CSIR-NGRI, India) and the Bureau de Recherches Géologiques et Minières (BRGM, France) have renewed on December 2nd, 2016 their 18 years-long association through the Indo-French Center for Groundwater Research (IFCGR or CEFRES). This laboratory is based on the NGRI Campus in Hyderabad, and conducts research activities on the characterisation of hard rock aquifers which are predominant all over southern India. It is investigating hydrodynamic properties of hard rock aquifers, groundwater sustainability management at watershed scale, groundwater quality including fluoride, and impact of managed aquifer recharge on the groundwater balance. IFCGR encourages the exchange of French and Indian MSc and PhD students and scientists in the field of hydrogeology.

First meeting of the Mahindra Ecole Centrale (MEC) Research Advisory Committee

Mahindra Ecole Centrale is a private engineering institute established in 2014 in Hyderabad, stemming from a partnership between Mahindra Educational Institution, a non-profit foundation of the group Mahindra & Mahindra, and Ecole Centrale Paris (now Centrale Supélec). It offers degrees in four specialities: Computer Science, Electrical & Electronics, Mechanical and Civil Engineering.

MEC is developing research and development activities in parallel with the ambition of attaining the highest international standards. To accompany these activities and to advise on the strategy of its Research Programme, MEC has established a Research Advisory Committee which held its first meeting on 20th January, 2017. Under the chairmanship of Prof. R. Shrivastava, Director of MEC, Indian and French scientists, heads of higher education institutions, representatives from the CNRS, CEFIPRA, and the SST visited the newly established laboratories before discussing the future orientation of the Research Programme of MEC.

French IRD scientist honoured as a Knight of the National Order of Merit

On 15th February, 2017, the French Ambassador in India, His Excellency Mr. Alexandre Ziegler, conferred upon Dr. Jean Riotte, geochemist at the French Institut de Recherche pour le Développement (IRD) and Co-chairman of the Indo-French Cell for Water Sciences at the Indian Institute of Science (IISc), Bangalore, the honour of Chevalier de l’Ordre National du Mérite (Knight of the National Order of Merit), in recognition of his contributions in the area of Water Research.

Mr. Ziegler commended Dr. Riotte for his long association with India and for his tireless efforts in research on water management over the years he has spent in Bangalore, illustrating a great example of a successful Indo-French collaboration in an area of utmost importance for both the two countries. He also highlighted how Dr. Riotte had truly integrated himself in the Indian diaspora with his family. Dr. Riotte in his speech thanked all present for the honour and expressed his hope to continue associating with India and Indian scientists in future endeavours.

Dr. V. Prakash from IFP awarded the "Presidential Awards for Classical Tamil" for the year 2015-2016 in the category "Young Scholar Award".

Dr. V. Prakash, a post-doctoral scholar working on Contemporary Tamil Culture at the Institut Français de Pondichéry (IFP), has been selected as a recipient of the "Presidential Awards for Classical Tamil" for the year 2015-2016 in the category "Young Scholar Award".

Dr. Prakash received his doctorate from Madras University in 2012. His dissertation focuses on the methodological challenges of constructing a critical edition of Puranam (an anthology of war poems from the classical Tamil corpus, 3 BCE - 3 CE). He joined the contemporary Tamil culture research program as a post-doctoral fellow at the IFP to continue his research on classical Tamil literature through contemporary multi-disciplinary approaches. At present he is working on the phenomenon of hunger and famine as depicted by classical and contemporary Tamil literature in collaboration with Kannan M. (IFP) and Srilata Raman (Toronto University) as well as on the concept of the anthropocene as evidenced by classical Tamil literature.

The members of the MEC Research Advisory Council
Meeting on Emergence and Evolution of Biological Complexity

Bringing experimentalists, theorists and philosophers together, a discussion meeting on “Emergence and Evolution of Biological Complexity” was held at the National Centre of Biological Sciences (NCBS) in Bangalore from 4th to 6th February 2017. This 3-day event, jointly organised by scientists from France and India, saw over 70 participants. With half of the speakers from France, this meeting set the stage for deeper conversations between experts from the two countries.

To enable closer interaction, Dr. Sandeep Krishna (NCBS, Bangalore) and Dr. Sudha Rajamani (IISER, Pune) co-organised this event along with their colleagues from École supérieure de physique et de chimie industrielles de la ville de Paris (ESPCI) - Dr. Philippe Nghe, Dr. Clément Nizak and Dr. Sandeep Ameta. In addition to bringing together scientists from various parts of France and India, they also roped in experts from other countries.

The key themes explored during this meet include the origins of life, origins of multicellular organisms and evolutionary processes at the molecular scale. Talks ranged from the emergence of complexity in RNA to dynamics of information exchange in evolving populations. Over 40 students benefitted from these talks and poster session discussions.

Admission Tour and PhD Tour 2017

The French Institute in India (IFI) and Campus France organised the Winter Admission Tour session from February 25th to March 5th, with, for the first time, a dedicated “PhD Tour” to highlight PhD opportunities in France for Indian students.

In each of the visited cities (New Delhi, Kolkata, Bangalore, Indore) the programme included two sessions: on one day, a delegation comprised of representatives of 11 French doctoral schools (Écoles doctorales) visited institutions of excellence to get a better knowledge about the higher education and research landscape in India and to explore possibilities for collaborations at the PhD level. On the other day, the members of the delegations held stands at the Admission Fair to meet with Masters students interested in pursuing a doctorate in France.

More than 1,800 students took part to this year’s Admission Tour, out of whom 20% came especially for the PhD Tour.

Workshop on Urban waters

Anna University (Chennai), François-Rabelais University (Tours, France) and the Institut Français de Pondichéry carried on a 3 year long research project on the diagnostics and environmental hazards of Chennai waterways. This research was funded by the French Ministry for Foreign Affairs and International development and the Region Centre-Val de Loire. The scope of the study was to map the fluvial system, influents and tributaries, identify potential agricultural, industrial and urban sources of incoming pollution, provide protocol of sampling bed sediments and water, measure sediments and water proxies, analyse trace element proxies, reconstruct the supposed upstream-downstream contamination gradient and correlate the state of polluted waters to the industrial areas and urban planning. The project has allowed the exchange of numerous scientists - from post-graduate students to senior University professors-, including two PhD students (one Indian and one French) who performed their research both in India and in France. On 15-17 February, scientists of the three institutions presented the results of their studies at the School of Architecture & Planning at Anna University.

Ecole Centrale de Lille / National Institute of Industrial Engineering (NITIE): A successful collaboration!

Following the visit of Prof. Karuna Jain, Director of the National Institute of Industrial Engineering (NITIE) to Ecole Centrale Lille (EC Lille) in May 2014, a delegation from EC reciprocated with a visit to Bombay in January 2015, which led to the signing of an MoU in February 2015 to develop student exchanges.

Since then, student mobility is blooming: 5 students from Ecole Centrale Lille have come to NITIE for an internship or a year of study, and 7 students from NITIE have done an exchange year in their final year of Master’s Degree at EC Lille; one of them benefitted from a Charpak Fellowship from the French Embassy. This student has later been selected to do a PhD in the same company where he did his internship, in the framework of the CIFRE PhD Programme.

In parallel, 3 professors from NITIE travelled to France for 1 or 2-week stays at EC Lille; while Prof. Geneviève Dauphin-Tanguy, Coordinator for relations with India at Ecole Centrale de Lille, paid a visit to her colleagues in Bombay in December 2016.
Visit of the Dept. of Management studies, IISc Bangalore by representatives of the SST and of the CNRS

Dr. Jérôme Bove, Scientific and Academic Attaché, Mr. Chandan Atreya, Scientific Coordinator, and Dr. Srini Kaveri, Director, CNRS Office in India and visited the Dept. of Management Studies at IISc, Bangalore on 13th January, 2017. They were hosted by Prof. M H Bala Subrahmanya from the department, and the delegation met with the Chairman, Prof. Parthasarathy Ramachandran who outlined the details of the department and the programs offered. The department is the oldest management institute in the country with traditional disciplines. However, being placed in IISc, the students have a natural inclination to pursue research-related topics. The department offers 2 programs:

- Masters in management, which is a highly selective program with a yearly enrolment of 15 students from about 550 applicants. It has 2 specialisations in Business Analytics and Technical Management;
- PhD programme, which has about 60 students pursuing their research in various management topics.

The department expressed its interest in student mobility to France as well as hosting foreign faculty to teach their students. The discussion was followed by an interactive presentation by Dr. Kaveri and Dr. Bove respectively to detail the opportunities and existing programmes offered to promote the mobility of students and the development of S&T cooperation.

Testimony: "My Engineering Internship in India"

"I am Lena Warnitz, a French 21 year-old student in electrical engineering at INSA Lyon, and I decided to do my engineering internship in India. Hence I worked 6 months at Crompton Greaves Ltd. in the transformer division, and I had the opportunity to complete a project in reactive power compensation. The project really helped me to improve my technical skills, and staying in India brought me much more advantages: it developed my adaptability skills, improved my English language capacity, and taught me to keep my mind open. I lived 6 months in Bombay and it is an amazing city to live in. It is important to say that I felt safe and at ease there. India is indeed quite a complicated country to adapt to, but don’t be afraid to ask for some help, everybody there will be glad to do so! I had an amazing experience there and I advise anyone to go there!"

ANNOUNCEMENTS

Publication of an article by IFP researchers in the Journal of Archeological Science

Title: Implications of phytolith records from an Early Historic megalithic burial site at Porunthal in Southern India

Authors & Institutions:
Premathilake, R1,2, Anupama, K1, Rajan, K3, Prasad, S1, Orukaimani, G1, Yathees Kumar, V.P3.
1. The French Institute of Pondicherry
2. Postgraduate Institute of Archaeology, University of Kelaniya, Sri Lanka
3. Department of History, Pondicherry University

Phytolith studies have been carried out at the archeological site of Porunthal, Tamil Nadu to better understand the relationship between plants and people in those ancient times (6th century BCE). The study has found that settled-paddy and millet farming cultures occurred as early as 6th century BCE in southern Tamil Nadu, India.

The study has been published online, 3rd January 2017, in the Journal of Archeological Science.

Link to complete article: https://authors.elsevier.com/a/1UKBVrVDBGD7g

Upcoming CEFIPRA Scientific Council and Industrial Research Committee meetings

The Scientific Council and the Industrial Research Committee meetings of the CEFIPRA will be organised from 15th to 19th May 2017 in Reims, France, to select new projects for funding.

Publication of Eustasy, High-Frequency Sea Level Cycles and Habitat Heterogeneity, a book by Mu Ramkumar and David Menier

This book is the outcome of a fruitful collaboration between David Menier from Laboratoire Géosciences Océan, University of South Brittany, and Mu Ramkumar from Department of Geology at Periyar University in Salem, India.

eBook ISBN: 9780128127216
Paperback ISBN: 9780128127209
Imprint: Elsevier
Published Date: 20th February 2017
LATEST CALLS

More details regarding the following calls can be found on our website www.frenchscienceindia.org:

- Marine Science International Postdoctoral Fellowships in France, 2017
- PhD Student Position available at the University of Tours, Loire Valley, France
- Institut Curie – IC-3i PhD Scholarship Program for International Students in France, 2017
- Centrale Nantes Elite Scholarships for Masters of Engineering Program in France, 2017
- Université Paris-Saclay International Master’s Scholarship Programme Academic Year 2017-2018
- Pasteur Institute Doctoral Research Scholarship for French and Foreign Scientists in France, 2017

And many other opportunities available on the Campus France Website: http://doctorat.campusfrance.org/en/phd/offers

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- Applications to the ‘Charpak Master Scholarships 2017’ are now open. More information on the website of Campus France India: http://www.inde.campusfrance.org/en/page/Charpak-masters-program

EVENT

Symposium “Engineers and society in India, from c.1850 to present times”, EHESS, PARIS, 27th and 28th March 2017

A 2-day symposium on “Engineers and Society in India” will be organised at École des hautes études en sciences sociales (EHESS) Paris on 27th and 28th March 2017, summing up the work of the ENGIND Project, which studies engineers in India from a social sciences perspective.

Detailed programme of the event is available here: https://engind.hypotheses.org/conference/detailed-programme