

Workshops on Artificial Intelligence (AI) in
Health and Agriculture organized by



CEFIPRA

at

KNOWLEDGE SUMMIT 3

INDIA-FRANCE • HIGHER EDUCATION • RESEARCH • INNOVATION

25-26 November, 2021

ABOUT
WORKSHOP

OUR
COORDINATORS

OUR
SPEAKERS

HEALTH
PROGRAM

AGRICULTURE
PROGRAM



CEFIpra

organised

KNOWLEDGE SUMMIT 3

INDIA • FRANCE • HIGHER EDUCATION • RESEARCH • INNOVATION

25-26 November, 2021

Indo-French Centre for the Promotion of Advanced Research (IFCPAR/CEFIpra) is a model for international collaborative research in advanced areas of Science & Technology. The Centre was established in 1987 and is being supported by Department of Science & Technology, Government of India and the Ministry for Europe & Foreign Affairs, Government of France. CEFIPRA is actively involved in supporting Indo-French Science, Technology & Innovation (ST&I) system through various activities. Scientific Collaborative Research Programme focuses on academia-to-academia collaborations between Indian and French academic collaborators in various domains. Industry Academia Research & Development Programme emphasizes to develop the linkage between Industry and Academia from France and India. Dedicated mobility support programmes of CEFIPRA provide exposure to young researchers of the working, social and cultural environment of the partnering country. Targeted Programmes of CEFIPRA provide platform for Indian and French National Funding Agencies to implement a programmes for specific areas. Innovation programmes through PPP mode, are the programmes where industries join hands with CEFIPRA as a funding partner for supporting R & D in defined priority areas.

Considering the importance of the area of Artificial Intelligence for India and France, the 34th Governing Body of CEFIPRA in April, 2021 recommended to organize Thematic Workshops on Artificial Intelligence (AI) at the 3rd edition of the Knowledge Summit. Accordingly, CEFIPRA is organizing the Workshops on AI in Healthcare and Agriculture.

HEALTH

Health, with a focus on diagnostic assistance for health workers in rural or peri-urban areas, and on the sensitive issue of collecting and protecting health data.

AGRICULTURE

Agriculture, on the contributions of AI to “sustainable” agriculture and precision agriculture, in particular in terms of irrigation management and chemical inputs, and strategies of farmers for transport and the marketing of their productions.



FRENCH COORDINATORS



PROF. PASCAL WEIL
ReLaX, CNRS UMI 2000
(LaBRI), Université Bordeaux I,
Bordeaux
<https://www.labri.fr/perso/weil/>



PROF. YANN BUSNEL
IMT Atlantique,
Nantes
<https://www.imt-atlantique.fr/en/person/yann-busnel>

INDIAN COORDINATORS



PROF. NIKHIL R PAL
ISI, Kolkata
<https://www.isical.ac.in/~nikhil/>



PROF. UTPAL GARAIN
ISI, Kolkata
<https://www.isical.ac.in/~utpal/>



FRENCH SPEAKERS

Speakers in the workshop on AI for Health



STÉPHANIE ALLASSONNIÈRE
Professor of Mathematics at the School of Medicine, University of Paris; Associated Professor in the applied Mathematics department of Ecole Polytechnique; Manager of master programs and masterclasses in AI in healthcare, Paris
<https://sites.google.com/site/stephanieallasonniere/>



NICOLAS FARRUGIA
Assistant professor at IMT Atlantique. Co-leader of the BRAIn team (Better Representations for Artificial Intelligence), Brest
<https://nicofarr.github.io>



GAËL VAROQUAUX
Research Director, Inria
Director of the scikit-learn operations at Inria foundation
Paris
<http://gael-varoquaux.info>



YANN LE CUNFF
Associate Professor, Biostatistician, Université de Rennes 1
Rennes
<https://eecs.iisc.ac.in/people/prathosh-a-p/>



YANN BUSNEL
Professor and Head, Department Network Systems, Cybersecurity and Digital Law, IMT Atlantique
Rennes
<https://iitj.irins.org/profile/216195>

Speakers in the workshop on AI for Agriculture



PROF. PIERRE BONNET
CIRAD UMR AMAP, Montpellier
<http://agents.cirad.fr/index.php/Pierre+BONNET>



PROF. HUGO GIMBERT
CNRS, UMR LaBRI,
Université de Bordeaux, Bordeaux
<https://www.labri.fr/perso/gimbert/>



PROF. PASCAL NEVEU
MISTEA, Univ Montpellier, INRAE,
Institut Agro, Montpellier
<https://www.inrae.fr/en/news/pascal-neveu>



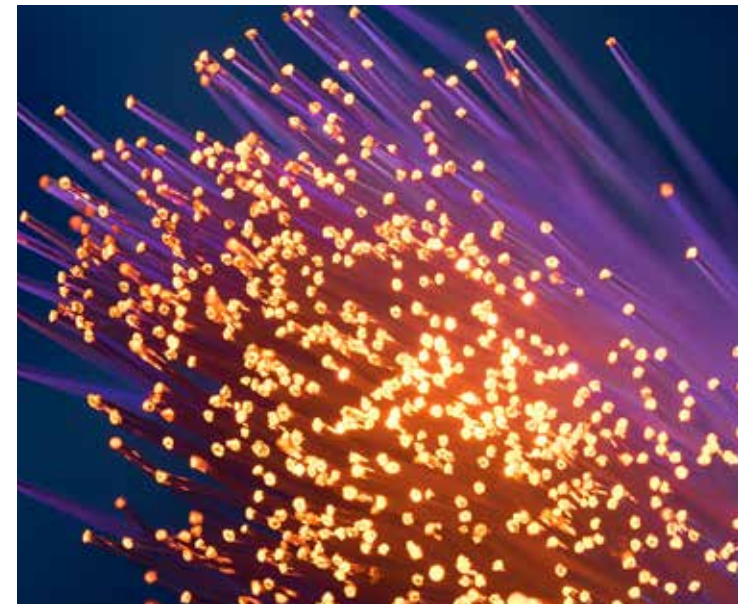
JÉRÉMY FOISSIL
Dilepix, Saint-Jacques-de-la-Lande
<https://www.dilepix.com/en/blog/author/j%C3%A9r%C3%A9my-foissil>



PROF. DELPHINE THIVET
Social Sciences Department, French Institute of Pondicherry, Pondicherry, India
<https://www.csh-delhi.com/team/member/delphine-thivet/>



CEDRIC GANGLOFF
MD, PhD
LTSI Laboratory, INSERM U1099,
Université de Rennes 1, Rennes



INDIAN SPEAKERS

Speakers in the workshop on AI for Health



TAVPRITESH SETHI

Associate Professor, Computational Biology,
Indraprastha Institute of Information Technology (IIIT), Delhi
<https://www.iiitd.ac.in/tavpritesh>



DIPTI PRASAD MUKHERJEE

Professor, Computer and Communication Sciences
Indian Statistical Institute (ISI), Kolkata
<https://www.isical.ac.in/~dipti/>



SHANDAR AHMAD

Professor, School of Computational and Integrative Sciences
Jawaharlal Nehru University (JNU), Delhi
<https://www.jnu.ac.in/content/shandar>



PRATHOSH A P

Assistant Professor, Dept. of Electrical Communication Engineering
Indian Institute of Science (IISc), Bangalore
<https://eecs.iisc.ac.in/people/prathosh-a-p/>



MITALI MUKERJI

Professor and Head, Department of Bioscience & Bioengineering
Indian Institute of Technology (IIT), Jodhpur
<https://iitj.irins.org/profile/216195>



DEBARKA SENGUPTA

Associate Professor, Computational Biology,
Indraprastha Institute of Information Technology (IIIT), Delhi
<https://www.iiitd.ac.in/debarka>



SUBASREE RAMAKRISHNAN

Additional Professor, Dept. of Neurology,
National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru
<https://nimhans.ac.in/neurology/faculty-neurology/>



AKASH NARAYANA

Senior Data Scientist,
Niramai Health Analytix, Bengaluru
<https://www.niramai.com/team/akash-narayana/>

Speakers in the workshop on AI for Agriculture



ALKA ARORA

Principal Scientist & Professor(CA),
Division of Computer Applications,
ICAR-Indian Agricultural Statistics Research Institute (IASRI), New Delhi
https://arms.icar.gov.in/iasri_team.aspx



KAVITA SUTAR-DESHPANDE

Adjunct Professor,
Chennai Mathematical Institute (CMI), Chennai
<https://www.cmi.ac.in/~ksutar/>



AYAN DAS

Scientist/Engineer, Space Applications Centre (SAC),
Indian Space Research Organisation (ISRO), Bengaluru
<https://www.sac.gov.in/Vyom/index.jsp>



ABHISHEK MUKHERJEE

Associate Professor, Agricultural and Ecological Research Unit (AERU)
Indian Statistical Institute, Giridih
<https://www.isical.ac.in/abhishek-mukherjee>



KAMLESH NARAYAN SINGH

Head, Division of Forecasting and Agricultural Systems Modeling
ICAR-Indian Agricultural Statistics Research Institute, New Delhi
<https://iasri.icar.gov.in/k-n-singh/>



MUKESH KUMAR

Scientist, Space Applications Centre (SAC)
Indian Space Research Organisation (ISRO), Bengaluru
<https://www.sac.gov.in/Vyom/index.jsp>



P.C. ABHILASH

Assistant Professor, Institute of Environment & Sustainable Development, BHU, Varanasi
<https://www.bhu.ac.in/iesd/faculty.php>



PARAG GAUTAM RAMTEKE

Product Manager
Adaptiwise Management Consulting, Mumbai
<https://www.linkedin.com/in/parag-ramteke-3993651b8/?originalSubdomain=in>

AI HEALTH

SPEAKER	DESIGNATION	INSTITUTION	TITLE OF PRESENTATION	TIME SCHEDULE	
25 Nov 2021: 10:00- 13:00 (FR) 14:30- 17:30 (IN)					
CEFIPRA AI Workshop on Health				French Time	Indian Time
Introduction by Workshop chairs				10:00 - 10:10	14:30 - 14:40
Tavpritesh Sethi	Associate Professor, Computational Biology,	Indraprastha Institute of Information Technology (IIIT), Delhi	Designing Real World Artificial Intelligence Solutions for Healthcare	10:10 - 10:25	14:40 - 14:55
Nicolas Farrugia	Ass. Prof.	IMT Atlantique, Lab-STICC, Brest	Better Representations for Artificial Intelligence	10:25 - 10:40	14:55 - 15:10
Dipti Prasad Mukherjee	Professor, Computer and Communication Sciences	Indian Statistical Institute (ISI), Kolkata	Exploring Non-invasive Tool for Monitoring Cancer Biology	10:40 - 10:55	15:10 - 15:25
Questions to the speakers from panelists and the general audience				10:55 - 11:15	15:25 - 15:45
Shandar Ahmad	Professor, School of Computational and Integrative Sciences	Jawaharlal Nehru University (JNU), Delhi	Multi-scale and multi-dimensional modeling of biological and biomedical data using intelligent systems	11:15 - 11:30	15:45 - 16:00
Gael Varoquaux	Research Director	INRIA, Neurospin Research Center, Paris	Machine learning and public health: the scikit-learn experience	11:30 - 11:45	16:00 - 16:15
Questions to the speakers from panelists and the general audience				11:45 - 11:55	16:15 - 16:25
Prathosh A P	Assistant Professor, Department of Electrical Communication Engineering	Indian Institute of Science (IISc), Bangalore	Information guided representation learning for healthcare analytics	11:55 - 12:10	16:25 - 16:40
Cedric Gangloff	MD, PhD	LTSI Laboratory, INSERM U1099, Université de Rennes 1, Rennes	Machine learning improves the performances of chest-CT and RT-PCR for COVID-19 diagnosis: a proof of concept study	12:10 - 12:25	16:40 - 16:55
Yann Busnel	Prof.	IMT Atlantique, IRISA, Nantes	Using AI for phamacovigilance : the Inshare project	12:25 - 12:40	16:55 - 17:10
Questions to the speakers from panelists and the general audience				12:40 - 12:45	17:10 - 17:15
General discussion by the panelists on the workshop's perspectives / elaboration of the conclusions				12:45 - 13:00	17:15 - 17:30
26 Nov 2021: 09:30- 12:30 (FR) 14:00- 17:00 (IN)					
CEFIPRA AI Workshop on Health					
Introduction by Workshop chairs				9:30 - 9:40	14:00 - 14:10
Mitali Mukerji	Professor and Head, Department of Bioscience & Bioengineering	Indian Institute of Technology (IIT), Jodhpur	Transdisciplinary initiatives for ecosystem phenomics and precision integrative medicine with focus in the Thar eco-region	9:40 - 9:55	14:10 - 14:25
Yann Le Cunff	Ass. Prof.	Université rennes 1 / IRISA, Rennes	To be announced	9:55 - 10:10	14:25 - 14:40
Debarka Sengupta	Associate Professor, Computational Biology,	Indraprastha Institute of Information Technology (IIIT), Delhi	Gene expression-based inference of cancer drug resistance	10:10 - 10:25	14:40 - 14:55
Questions to the speakers from panelists and the general audience				10:25 - 10:45	14:55 - 15:15
Subasree Ramakrishnan	Additional Professor, Dept. of Neurology	National Institute of Mental health and Neurosciences (NIMHANS), Bengaluru	Brain Computer Interfaces in Neurorehabilitation	10:45 - 11:00	15:15 - 15:30
Akash Narayana	Senior Data Scientist	Niramai Health Analytix, Bengaluru	Breast cancer screening with thermal imaging and AI.	11:00 - 11:15	15:30 - 15:45
Questions to the speakers from panelists and the general audience				11:15 - 11:30	15:45 - 16:00
Stéphanie Allasonnière	Prof.	PRAIRIE, University of Paris, Paris	"Three example of decision support systems. Outputs of my PR[AI] RIE researches"	11:30 - 11:50	16:00 - 16:20
General discussion by the panelists on the workshop's perspectives / elaboration of the conclusions				11:50 - 12:30	16:20 - 17:00

AI AGRICULTURE



SPEAKER	DESIGNATION	INSTITUTION	TITLE OF PRESENTATION	TIME SCHEDULE	
25 Nov 2021: 10:00- 13:00 (FR) 14:30- 17:30 (IN)				French Time	Indian Time
CEFIPRA AI Workshop on Sustainable Agriculture					
Introduction by Workshop chairs				10:00 - 10:15	14:30 - 14:45
Alka Arora	Principal Scientist & Professor(CA), Division of Computer Applications	ICAR-Indian Agricultural Statistics Research Institute (IASRI), New Delhi	Applications of AI techniques in Image analysis for Agricultural Domain	10:15 - 10:27	14:45 - 14:57
Pierre Bonnet	Chercheur, UMR AMAP	CIRAD, Montpellier	Potential of deep learning for the development of a more sustainable agriculture. Analysis of case studies aiming at the automated characterization of plants and agricultural fields	10:28 - 10:40	14:58 - 15:10
Questions to the speakers from panelists and the general audience				10:40 - 10:50	15:10 - 15:20
Abhishek Mukherjee	Associate Professor, Agricultural and Ecological Research Unit (AERU)	Indian Statistical Institute, Giridih	Machine learning for image-based identification of root knot nematode species	10:50 - 11:02	15:20 - 15:32
Jeremy Foisil	Mr	Dilepix, Rennes	Software solutions based on computer vision and artificial intelligence for precision agriculture	11:03 - 11:15	15:33 - 15:45
Questions to the speakers from panelists and the general audience				11:15 - 11:30	15:45 - 16:00
Kavita Sutar-Deshpande	Adjunct professor	Chennai Mathematical Institute (CMI), Chennai	Corn yield estimation from drone images	11:30 - 11:42	16:00 - 16:12
Ayan Das	Scientist/Engineer, Space Applications Centre (SAC)	Indian Space Research Organisation (ISRO), Bengaluru	AI/ML for crop discrimination and yield modeling using multi- source remote sensing data	11:43 - 11:55	16:13 - 16:25
Questions to the speakers from panelists and the general audience				11:55 - 12:05	16:25 - 16:35
Hugo Gimbert	Chargé de recherche, LaBRI	CNRS, Bordeaux	AI and Robotics for Sustainable Agriculture	12:05 - 12:17	16:35 - 16:47
Mukesh Kumar	Scientist, Space Applications Centre (SAC)	Indian Space Research Organisation (ISRO), Bengaluru	ML based kharif crop discrimination and mapping using microwave remote sensing data	12:18 - 12:30	16:48 - 17:00
Questions to the speakers from panelists and the general audience				12:30 - 12:40	17:00 - 17:10
General discussion by the panelists on the workshop's perspectives, early conclusions				12:40 - 13:00	17:10 - 17:30
26 Nov 2021: 09:30- 12:30 (FR) 14:00- 17:00 (IN)					
CEFIPRA AI Workshop on Sustainable Agriculture					
Introduction by Workshop chairs				09:30 - 09:35	14:00 - 14:05
Pascal Neveu	Directeur de recherche, UMR MISTEA	INRAe, Montpellier	Overview of artificial intelligence methodologies and Big Data for agriculture	09:35 - 09:47	14:05 - 14:17
Kamlesh Narayan Singh	Head, Division of Forecasting and Agricultural Systems Modeling	ICAR-Indian Agricultural Statistics Research Institute, New Delhi	Application of machine learning techniques for crop yield forecasting using weather variables	09:48 - 10:00	14:18 - 14:30
Questions to the speakers from panelists and the general audience				10:00 - 10:10	14:30 - 14:40
Parag Gautam Ramteke	Product Manager	Adaptiwise Management Consulting, Mumbai	Developing data driven solutions to address problems faced in Agricultural Finance and Insurance	10:10 - 10:22	14:40 - 14:52
Delphine Thivet	Assistant Professor, Director of the Department of Social Sciences	French Institute of Pondicherry, Pondicherry	Digitalization of Agriculture: Perspectives from the Social Sciences	10:23 - 10:35	14:53 - 15:05
Questions to the speakers from panelists and the general audience				10:35 - 10:45	15:05 - 15:15
P.C. Abhilash	Assistant Professor, Institute of Environment & Sustainable Development	Banaras Hindu University, Varanasi	Adaptive Agricultural Practices for Rural Food Security	10:45 - 10:57	15:15 - 15:27
Questions to the speakers from panelists and the general audience				10:58 - 11:03	15:28 - 15:33
General discussion by the panelists on the workshop's perspectives / elaboration of the conclusions				11:05 - 12:30	15:35 - 17:00



For further information, please contact:

Director

Indo-French Centre for the Promotion of Advanced Research (IFCPAR)/
Centre Franco-Indien pour la Promotion de la Recherche Avancée (CEFIPRA)
5B, Ground Floor, India Habitat Centre, Lodhi Road, New Delhi - 110 003,
India

Tel: 011 2468 2251, 2468 2252, 2463 3567, 4352 6261

E-mail: director.office@cefipra.org ; Website: www.cefipra.org