



IGRGEA LETTER

International Geophysical Research Group /Europe-Africa
International Geophysical Research Group /Europe-Asia

IGRGEA

At the end of the IEEY (International Equatorial Electrojet Year), in 1995, IGRGEA (International Geophysical Research Group Europe Africa) has been organized to follow the research work initiated during IEEY, in 1992. Since January 2003 IGRGEA has been established at the Institute of Geophysics in Hanoi, Vietnam.

The last letter, No. 60, dated June 2018.

BURKINA FASO



Frédéric OUATTARA was the winner of the Space Science Excellence Award for Africa for the year 2018. He received the award at the AGU Fall Meeting in Washington DC on December 12th.



Movie of the ceremony

<https://www.facebook.com/495732770499088/posts/2429382257134120/>

Frédéric OUATTARA is currently Vice-President of KOUDOUGOU University in BURKINA FASO

COTE D'IVOIRE

Tuo ZIE, is doing a thesis, under the direction of Vafi DOUMBIA (HOUPHOUËT BOIGNY University, CÔTE D'IVOIRE), on the theme: "*Study of the Equatorial Electrojet (EEJ), based on data from CHAMP and SWARM satellites*". Among other things, he examines the seasonal variation of the longitudinal profiles of the EEJ in light of the thermosphere wind profiles. He obtained a grant from the program PASRES (Strategic Support Program for Scientific Research) of the Swiss Center in Côte d'Ivoire. He will do a research internship at IPGP in France under the direction of Pier David COISSON.

Josée YAO of the University HOUPHOUËT BOIGNY, prepares a thesis on the subject: "*Study of the total content in electron using the model NeQuick 2 in West Africa*" under the direction of Olivier OBROU (University HOUPHOUËT BOIGNY) and Bruno NAVA (ICTP: The Abdus Salam International Center for Theoretical Physics). For the past 3 years, she was a regular ICTP resident, funded by the OPEC Fund for International Development (OFID) and ICTP under the Postgraduate Fellowship STEP program.

FRANCE-MAROC

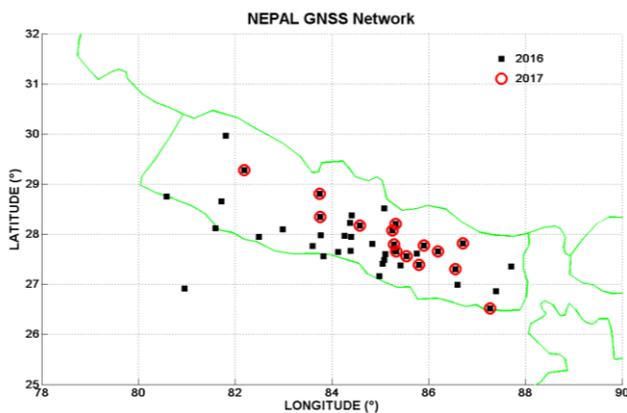
Amal LOUTFI of the Cady Ayyad University, began a thesis on the theme "*Couplings ionosphere-thermosphere at low latitude during magnetic storms*". She is supervised by Aziza BOUHNIR (Cady Ayyad University) and Frédéric PITOUT (IRAP). As part of the TOUBKAL program that will begin in 2019, Amal LOUTFI will work at IRAP in Toulouse



from April to September 2019. Her PhD supervisor Aziza BOUHNIR will visit IRAP one week and her co-director Frédéric PITOUT will return to Cady Ayyad University for a week. The TOUBKAL program lasts 3 years.

NEPAL

In the framework of the workshop organized by the ICG (United Nations International Commission for GNSS) in Nepal in December 2016, a collaboration has started with France. Two students Drabindra PANDIT and Basu GHIMIRE are supervised in Nepal by Narayan CHAPAGAIN. The two students will use the GPS network of Nepal, below, set up by UNAVCO.



They will be helped in their study by Rolland FLEURY (IMT Atlantic Bretagne, Ecole Mines-Télécom) and Christine AMORY-MAZAUDIER (Sorbonne University, UPMC, LPP).

NIGERIA

Oluwakemi DARE-IDOWU has begun her thesis at Toulouse 3 University, Paul Sabatier, in the CESBIO Laboratory Center for Space Studies of BIOSphere (CESBIO). She will be directed by Aurore BRUT and Lionel JARLAN. The theme of her thesis is: "*The impact of climate and anthropogenic effects on the energy balance and evapotranspiration of irrigated agrosystems: Multi-site analysis with modeling and experimentation.*"

The Petroleum Technology Development Fund (PTDF) is the sponsor of the program funding Oluwakemi's thesis. It is an organization created by the Federal Government of Nigeria to train Nigerian graduates.

DEMOCRATIC REPUBLIC OF CONGO

Kenny KHALE-SAYI defended his thesis on July 9, 2018 at the University of Strasbourg. Title of his thesis: '*Study of the correlated background noise induced by cosmic muons in the Double Chooz experiment.*'

He now teaches at the University of Kinshasa.

Photo of the Thesis Jury, from left to right Kenny KALE SAYI, Jérôme BAUDOT, Alessandra TONAZZO, Cécile JOLLET and Claudio GIGANTI.



Patient NTUMBA WA NTUMBA starts his thesis in computer science at INRIA and is financed by a grant from INRIA, the precise subject remains to be defined.

Rodriguez YOMBO obtained an ARES scholarship. He started a co-supervision thesis between the University of Kinshasa (DRC) and the University of Liège (Belgium), in the Aerial Space team. The theme of his thesis is: "*Biogenic emissions in the Congo Basin, impact on the validation of the TROPOMI instrument aboard the SP5 satellite, impact on air quality in Central Africa. (DOAS Remote Sensing Study: Installation of Measurement Stations*



GIRGEA

SENEGAL

A regional workshop on Global Navigation Systems was organized in Dakar from 13 to 15 November 2018 by CRASTE-LF. Idrissa GAYE from THIES University, who is organizing the next GIRGEA school, took part and made contacts to put in the program of our next school a presentation of the EGNOS system.

Photo of the GNSS Workshop in Dakar



VIETNAM

The first French-Vietnamese school in plasma physics, Level M1, will take place in Qui Nhon. You will find on the following link all the information:

<http://www.plasapar.com/en/school-vietnam>

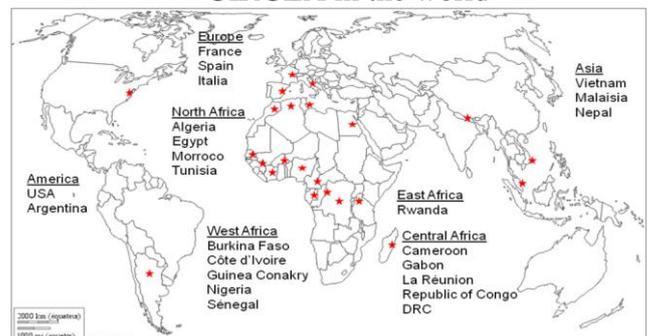
This school will associate Vietnamese and French research teachers from the following organizations: VAST, CNRS, Sorbonne Universities, Ecole Polytechnique. Registration is free and the number of places limited to 25.

It is an international school which aims to radiate in the Asia zone: Vietnam, Laos, Cambodia, Indonesia, Malaysia, etc.

Table 1: PhD [update November 2018]

Countries	PhD [1992-2018] [with GNSS]	PhD in Progress [with GNSS]
Algeria-2010	3	3 [2]
Benin-1990	1	
Burkina Faso-2006	6 [2] 2009,2014	7
Cameroon-2015	1	
Cote d'Ivoire-1990	11	5 [3]
Egypt-2010	3 [1] 2015	
Spain-1990	1	
France-1990	3	
Guinea Conakry-2016		1
India-2007	1	
Nigeria-1990		1
Malaysia-2018	1	
Morocco-2013	1 [1] 2016	3 [3]
Nepal-2018		2 [2]
RC-2009	1	1 [1]
DRC-2011	4	5 [1]
Senegal-1990	2	
Tunisia-2017	1	
Vietnam-2006	6 [1] 2014	2 [1]
total	46 [5]	30 [13]

GIRGEA in the world



ARTICLES

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