

Report on the 2017 POGO-SCOR Fellowship Programme and summary of selected candidates for the 2018 POGO-SCOR Fellowship Programme

This year saw the eighteenth fellowship programme jointly supported by POGO and SCOR. As the POGO Members had to be consulted on this year's budget expenditure at POGO's annual meeting at the end of January 2018, the announcement was posted on 13 February 2018, with a closing date of 9 April 2018.

A total of 29 applications were received this year (28 applications received in 2017) Applications were received from 15 countries (vs 16 countries in 2017). The highest number of application was received from India.

According to the combined available budget from POGO and SCOR, 4 candidates were selected from Turkey, India, Indonesia, and Colombia.

The applications were screened independently by a committee of four, with representation from SCOR, POGO and other partners (including host supervisors of fellows from 2017). In making their selection, the committee considered the following factors:

- quality of the application;
- relevance of the application to the priority areas identified in the fellowship announcement;
- evidence that the training will lead to improved sustained observations in the region, or improved applications of such data;
- evidence that the training would lead to capacity-building with potential lasting impact on regional observations, and
- the need to maximise regional distribution of the awards.

POGO and SCOR commend the efforts from all the supervisors and colleagues at the various host institutions who agreed to devote time and energy required for the training. The programme would not have been viable without such efforts from prominent scientists and their teams.

All the people involved in each fellowship for the 2017 cohort (the fellowship holder, the supervisor at the parent institute and the supervisor at the host institute) have been requested to submit short reports at the end of the training period. The reports that

here follow are from the 2017 fellowships. Both host and parents supervisors, as well as the fellows themselves, have indicated that these exchanges lead to effective capacity building at the host institute and facilitate longer term collaborations between the institutes concerned. All have concluded that the programme serves a useful purpose.

There is tremendous interest in the fellowship programme at all levels, both in the oceanographic institutions of the developing nations, as well as among leading scientists who are eager to contribute to this initiative. It is seen to be filling a niche in capacity building through specialised training that is not filled by intensive courses or by participation in scientific meetings. It helps improve the *esprit de corps* among oceanographic institutions around the world, and serves as a stepping stone to building collaborations.

Furthermore, the POGO-SCOR fellowship scheme is increasingly seen by other organisations as a model in capacity building, and similar schemes have been set up by other programmes based on the success of the POGO-SCOR model (e.g. EU projects, the Europe-Africa Marine Network, EAMNet; and the EUROMARINE consortium of European Networks of Excellence). The POGO Secretariat is often approached for help/advice on setting up similar fellowship schemes, or proposals to partner up with other organisations.

Demography of Fellowships from 2018

Parent Institutions:

Turkey	Istanbul Technical University
India	Kerala University of Fisheries and Ocean Studies
Colombia	Universidad Nacional de Colombia at Medellín
Indonesia	Indonesia Agency for Meteorology, Climatology, and Geophysics (BMKG)

Host Institutions:

Germany	Helmholtz-Zentrum Geesthacht, Institute for Coastal Research
UK	Plymouth Marine Laboratory
Spain	Mediterranean Institute for Advanced Studies (IMEDEA)
USA	Lamont-Doherty Earth Observatory, Columbia University

Gender distribution

Male: 3

Female: 1

Demography of Fellowships from 2017

Parent Institutions:

Chile	University of Concepción
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Nigeria Federal University of Technology, Akure, Nigeria
India ESSO-National Centre for Antarctic and Ocean Research
India Indian Institute of Technology, Bombay, India

Host Institutions:

Norway University of Bergen
Laboratoire d'Etudes en Géophysique et Océanographie
France Spatiales (LEGOS)
UK The Scottish Association of Marine Science
French Research Institute for the Sustainable Exploitation of the Sea
France (IFREMER)

Gender distribution

Male: 2

Female: 2

Reports from 2017 Fellows and their Host Supervisors



Louis Antonio Cuevas – Chile

Parent supervisor and institution: Dr. Cristian Vargas – University of Concepción, Chile.

Host supervisor and institution: Dr Benjamin Pfeil – University of Bergen, Norway.

Fellowship period: 28/08/17 - 8/10/17

Topic: *Data Management and Analysis for the Essential Ocean/Climate Variable Inorganic Carbon/Carbonate System Parameters.*

Report from Fellowship holder, Louis Antonio Cuevas:

“I had the opportunity to carry out a POGO-SCOR Fellowship research stay at the Bjerknæs Climate Data Centre (BCDC) at the Geophysics Department in the University of Bergen, Norway. During the research I had to work directly with Benjamin Pfeil (leader of the BCDC) and with every member of the BCDC, addressing different topics. Here is a short description of the different topics/training covered by the each member at BCDC and myself:

- Benjamin Pfeil: Research infrastructures for ocean observing systems, FAIR principles (Findable, Accessible, Interoperable, and Reusable) for scientific data management, portals and data acquisition for programs such as Surface Ocean CO₂ Atlas (SOCAT), Global Ocean Acidification Observing Network (GOA-ON), and (GLODAP).
- Steve Jones: Concepts concerning data quality control and protocols for QuinCe. QuinCe is a new software that will allow to upload, process, and run quality control of surface ocean CO₂ data from ships and moorings.
- Camilla Landa: pCO₂ quality control for the Surface Ocean CO₂ Atlas (SOCAT). Archiving, publishing and distribution of georeferenced data at PANGAEA open access library.
- Christopher Bernard: Creation of metadata and protocols for GOA-ON. I also had meetings with Dr. Ingunn Skjelvan, researcher at the Integrated Carbon Observation System (ICOS) at the University of Bergen, to learn from the activities and station labeling procedures for the Voluntary Observing Ships (VOS) platforms already part of ICOS research infrastructure. Additionally, other activities (listed chronologically) were carried out during this research stay.
- September 11-12, 2017 – DuraFET workshop. I participated in the workshop entitled “Best practices for Durafet-based ocean and laboratory pH time-series”, held at the Laboratoire d’Océanographie de Villefranche-sur-mer. During this workshop the use of Durafet sensors and SeaFET devices was revised and discussed to get accurate measurements of pH for time series studies and laboratory experiences. An extended part of this workshop was used to run accurate quality control and calibrations using the Chilean pH data generated by these sensors.
- September 18, 2017 – I had the chance to present a seminar for the Geophysics Department and the Bjerknes Centre for Climate Research (BCCR) to spread the latest research efforts on carbonate parameters and ocean observation systems in Chile and Latin-America, presenting the Latin-American Ocean Acidification Network (LAOCA Network). The title of this seminar was “Latin-American Ocean Acidification Network (LAOCA Network) and main inorganic carbon/carbonate system research in Chile”.
- September 29, 2017 – Visit to Aanderaa Data Instruments AS. Together with Benjamin Pfeil, we visited Aanderaa Data Instruments AS, company specialized in the generation of oceanographic sensors. During the visit the company presented the latest development and calibration protocols for pressure, conductivity, oxygen and pH sensors. Additionally, we observed the use of data loggers, real-time communication systems, buoys and mooring platforms.
- October 3-5, 2017 – EuroGOOS Conference. Operational Oceanography Serving Sustainable Marine Development, held in Bergen, Norway. I also had the opportunity to join this conference and talk with the scientists working on operational observing systems, observational networks, and also to discuss the latest technology associated to other monitoring platforms in Europe. Additionally, I joined two side events during EuroGOOS: ENVRIplus meeting, and JERICO-Next Join WP2-WP5 workshop”.

What applications of the training received do you envision at your parent institution?

“The MUSELS Centre at the University of Concepcion (parent institution) has started to monitor the carbonate parameters in different areas of the Chilean coastal zone, making an effort in the accuracy of the data generated. At the same time has started to compile this information to understand local and global process. The training received will be essential to produce an integrated understanding of the coastal variability of the carbonate parameters by running appropriated quality control procedures and appropriated management of the dataset generated. Additionally, the parent institution is part of the Latin- American Ocean Acidification Network ([www. http://laoca.cl/en/](http://laoca.cl/en/)) where we also aim to produce appropriated and quality controlled dataset for the carbonate parameters, becoming a regional hub for the Global Ocean Acidification Observing Network (GOA-ON). As result, during this research stay, we have submitted a new collaboration proposal to the International Cooperation Program in Chile, where we (MUSELS Centre and BCDC) plan to hold a workshop in Latin America, Chile, to continue with the standardization of databases and data quality control for the carbonate system parameters”.

Please provide your comments on the Fellowship Programme.

“For this specific training, the POGO-SCOR program has helped me to start training and also to start the capacity building on the study of the carbonate system parameters using the long-time experience of BCDC in this area. The study of the marine carbonate system parameters (e.g. $p\text{CO}_2$, pH) still has low coverage in the ocean around Latin America, but different research groups have already started to measure and compile this information. The POGO-SCOR Programme has then already started the link between the global network and a regional network by supporting and facilitating the research stay in Norway. The Programme in this specific case worked on ocean observing systems and datasets, since we used time-series observations of relevant carbonate system parameters. Thanks to the POGO-SCOR Programme we will continue with this collaboration by setting up new training opportunities and collaborative workshop on the same subject”.

Report from host supervisor, Dr Benjamin Pfeil:

“Staff of the Bjerknes Climate Data Centre (BCDC) at the University of Bergen was glad to welcome Dr. L. Antonio Cuevas for 6 weeks in our group. During his stay in our group we were able to show him different data management activities undertaken at BCDC. Antonio was able to learn about different research infrastructures for ocean observing systems, concepts and examples about carbonate system data quality control, and detailed metadata documentation. The University of Bergen, and our Department also hosts the Ocean Thematic Centre (OTC) of the European Research Infrastructure Integrated Carbon Observation System (ICOS). Antonio had the opportunity to interact with the respective specialists from the OTC. During his research stay he also got familiar

with data management principle e.g. FAIR principles (Findable, Accessible, Interoperable, and Re-usable) for scientific data management which is becoming mandatory in Europe. Additionally, Antonio was able to work with pCO₂ data for the Surface Ocean CO₂ Atlas (SOCAT), and learned about the potential of automated data reduction and quality control software which is being developed for IOCS OTC. Antonio was able to attend the EuroGOOS conference, hosted in Bergen, where he had the chance to get a better overview of the European scientific landscape and to get to know European experts in the field. Furthermore, Antonio was welcomed at a ENVRIplus meeting (www.envriplus.eu). ENVRIplus is a Horizon 2020 project bringing together Environmental and Earth System Research Infrastructures, projects and networks together with technical specialist partners to create a more coherent, interdisciplinary and interoperable cluster of Environmental Research Infrastructures across Europe. Antonio received an inside view of the principles, complex structures and understanding the relationships between research infrastructure in Europe and got to know key players from the various fields. Additionally, a visit to Aanderaa Data Instruments AS, in Bergen, was also carried out, having the opportunity to observe the development of different sensors for the oceanographic observation in the ocean”.

Please provide your comments on the performance of the trainee.

“Antonio had the chance to present his work and network during our Bjerknes Centre for Climate Research colloquium attended by scientists from the Geophysical Institute of the University of Bergen, Nansen Centre for Remote Sensing and the Institute of Marine Research. In the presentation he presented the latest activities on inorganic carbon / carbonate system research in Chile and in Latin- America. The successful collaboration between aquaculture and research in Chile is very inspiring and our research groups were able to learn from the about new approaches which are highly relevant for Norway. It was enriching for us to get to know Antonio, his work and his network. He became a part of our group and we were sad to see him leaving but we all are keeping up the collaboration with him and hopefully welcoming him again in Bergen or visiting him in Chile”.

Is this exchange likely to lead to future collaboration with the trainee’s parent institution?

“Yes, to continue the collaboration, Antonio and BCDC staff submitted a new collaboration proposal to the International Cooperation Program in Chile. We plan to hold a workshop in Chile to continue with the standardization of databases and data quality control for inorganic carbon/carbonate system parameters. We are also in contact with Antonio and other members of his working group in Chile and we will continue to collaborate with our South American colleagues especially in the context of the Global Ocean Acidification Observing Network (GOA-ON). Within GOA-ON we need regional hubs as the Latin-American Ocean Acidification (LAOCA) Network that get access to data, ensure quality, consistency and documentation. Thus, an important

aspect of this type of collaboration is to assure the continuation of the interaction between researchers and to extent the experience of the researchers to different partners”.

Please provide your comments on the Fellowship Programme:

“The programme has helped to start a long-term collaboration and to start a link between a regional and a global network, as LAOCA and GOA-ON, respectively. In this specific case, 1.5 month was a perfect period of time to shown Antonio the main ideas and background about data management for the carbonate system parameters and to show him the different areas about the data management of essential marine carbonate system parameters. We would like to thank POGO-SCOR for funding Antonio’s research stay, giving us the chance to establish a closer collaboration with him and his network, and being able to learn from each other!”.



Olusegun A. Dada – Nigeria

Parent supervisor and institution: Prof Kouadio Affian – Federal University of Technology, Akure, Nigeria.

Host supervisor and institution: Dr. Rafael Almar, Laboratoire d’Etudes en Géophysique et Océanographie Spatiales (LEGOS).

Fellowship period: 11/9/17-29/11/17

Topic: *Coastal evolution of the Gulf of Guinea and its ocean forcing.*

Report from Fellowship holder, Dr Olusegun A. Dada:

“My experience was awesome during the POGO-SCOR Fellowship training at d’Etudes en Geophysique et Oceanographie Spatiales (LEGOS), Toulouse, France. It avails me the opportunity of meeting relevant people in my field of specialization and also exposes me to different techniques and instruments that would be of greater help for my career. During the first week of the fellowship, I was fortunate to partake in a week-long workshop titled “Hydrology of the Niger River/Gulf of Guinea: scientific issues, operational issues, the contribution of spatial measurements and preparation for the future altimetry mission high-resolution SWOT”. During this workshop, I saw presentations from different scientists studying various aspects of the Gulf of Guinea basin using remote sensing technology. As part of the workshop, I was given the opportunity to ask questions and make contributions. The conference was an eye-

opening on how ocean research could be carried out using advanced technologies. The following weeks after the workshop, my host (Dr Almar) introduced me to different groups in LEGOS, and I spent the next 4 weeks interacting with them on how to use different technologies for coastal observations and surveys, focusing on how to acquire, process and interpret data on ocean forcing (e.g. waves, wind, tides), and as well sea level change studies using satellite altimetry. I learned about how to calculate and model coastal-storm inundation elevations for the Nigerian section of the Gulf of Guinea, in order to identify areas that, both in present-day and future, are potentially affected by coastal hazards. The data acquired for running this model are astronomic tides generated from the global tidal model, wave parameters and beach slopes for calculating run up, and sea level anomaly generated from altimetry data. The beach slopes were derived from the combination of Sentinel-1 data and global tidal model. During the last 3 weeks of my fellowship, I joined the team of researchers, led by Dr Rafael Almar, on the littoral monitoring campaign in Capbreton, France coast of the SW North Atlantic Ocean, from 6 to 17 of November 2017 (www.insu.cnrs.fr/node/7675). The objective of the field experiment was to develop a new remote sensing data collection techniques that combine the opportunistic use of land-based "surf-cams" (View Surf network of video cameras installed on the coast for recreation) and the high-resolution and near-global optical satellite imagery (Pléiades satellite from CNES). The field experiment involved a survey of the coastal topography (zone of the coast above sea level) and the bathymetry (submerged part of the coast) and evaluation of the local variability at sea level. The data gathered during this experiment will be analyzed to better understand of coastal sedimentary transport and the morphological evolution of the coastal zone as a complete integrated system.

Report from host supervisor, Dr. Rafael Almar:

“Over the 3 months at LEGOS, Toulouse, Dr. Dada and several researchers initiated a collaboration on 3 lines of research based on remote sensing of the nearshore: 1) regional intertidal shore mapping using satellite, 2) estimation of Niger sediment solid discharge using satellite and 3) high frequency of the nearshore using shore-based cameras. Dr Dada extracted Sentinel (ESA) satellite data and computed local topography, together with sea level at different timescales to compute vulnerability maps of Nigeria, with focus on the mud coast. 2 papers are in preparation based on this work, and several investigation lines have been launched.

Additionally, Dr Dada had the unique opportunity to participate to a field experiment on the Atlantic Coast of France during 2 weeks (funded by LEGOS). He could meet several European researchers and share/learn scientific experience”.

Please provide your comments on the performance of the trainee.

“It was a pleasure to meet and work with Dr Dada. He is a very active and hard worker and did more than expected”.

Is this exchange likely to lead to future collaboration with the trainee's parent institution?

“Definitely yes. Research is ongoing and will lead to 2 major papers, a permanent video system (offered by LEGOS) will be installed in the mud coast of Nigeria by the team of Dr Dada and will allow long term collaboration.

Some potential proposals to international calls are envisaged, with other countries in the Gulf of Guinea”.



Divya David Thresyamma– India

Parent supervisor and institution: Dr Anil Kumar N – ESSO-National Centre for Antarctic and Ocean Research.

Host supervisor and institution: Prof Finlo Cottier - The Scottish Association of Marine Science.

Fellowship period: 13/11/2017 to 13/2/2018

Topic: *Arctic oceanography time series supporting model development.*

Report from Fellowship holder, Divya David Thresyamma:

“The training period had been utilized very well to understand the physical processes and the degree of similarity/difference of the time series physical data available from the IndARC and SAMS moorings at the inner and outer parts of Kongsfjorden. As part of the mooring analysis, I investigated a number of approaches to distinguish between changes in the oceanographic conditions through either a) advective or b) meteorological processes. In particular, the occurrence of Atlantic Water in the western fjords and coastal waters of Svalbard is of particular interest as it relates to the gradual “atlantification” of the Arctic (increases in heat and salt). Therefore, a quantitative index for how much the waters are influenced by Atlantic Water was developed which will provide a key measure for further investigations. This approach also considered how representative the moorings are from a regional perspective and investigated how reliable and relevant satellite derived sea surface temperature data are when integrating time series. Ultimately, I was also trained in numerical data processing to fully understand the driving process and variability in Atlantic Water advection. Further, all these will be helpful in ROMS realistic modelling runs which are ongoing in the parent institute in which I am involved.

Another area of training received was in utilisation of robotic technologies for remote data collection. SAMS has an expertise in using gliders and I got the opportunity to gain

some knowledge and experience during their recent deployment of a Slocum glider in the Barents Sea, south of Svalbard. I could understand how gliders are used to support data collection in science projects as well as the practicalities of management and piloting of it with the help from the senior technician, Ms Estelle Dumont.

In addition to these, my visit to SAMS gave me an interesting opportunity to participate in a teaching module for Masters level students in professional skills. The modules in the course helped me in polishing my skills of scientific approaches, presentations and preparation of proposals and many more. This helped me to be part of the student community and to develop my knowledge of core professional skills.

What applications of the training received do you envision at your parent institution?

- A research paper will be prepared based on the work done during the training period.
- This collaboration and the host supervisor will be guiding my PhD program.
- There will be a potential collaboration on Arctic observational programs.
- I am presently a co-investigator of the project “Svalbard Integrated Observing System” which will be contributing to and provide a platform for further joint work.
- The training received in the glider operations will facilitate the implementation of a glider programme at parent institute.
- A continuation of the scientific collaboration in terms of more publications and projects together.

Please provide your comments on the Fellowship Programme.

“The fellowship paved the way to understand the current research techniques and methods in polar ocean sciences which is extremely useful and important for an early career scientist like me. I got various opportunities, through my host supervisor, during my fellowship tenure to interact with experts in different related fields. I firmly believe that the fellowship was a boon to boost and properly shape up my future career as a women observational oceanographer. I will always cherish the SAMS memories and experiences which I imbibed with enthusiasm. Further, I will be sharing my experiences and knowledge gained through this fellowship to my peers and collaborators. I am really honoured and grateful to the POGO-SCOR for providing me with this invaluable opportunity”.

Report from host supervisor, Prof Finlo Cottier:

“A primary aim of the Fellowship was for Ms David to spend time at SAMS developing ideas and approaches for the analysis of long term observations from the Arctic. Ms David and myself have complementary moorings from the same coastal location in NW Spitsbergen and the Fellowship presented an opportunity to learn about a) time series analysis b) arctic coastal/fjordic oceanography c) integration of ancillary data sets from

satellite and reanalysis products. The SAMS mooring was established in 2002 and represents 15 years of continuous monitoring. The Indian mooring (managed by Ms David) was established in 2014 – so a shorter deployment period but with a much greater number of sensors. Therefore, we had the opportunity to investigate processes in terms of the temporal (SAMS) and measurement (India) resolution. Ultimately the work that was done will help to define appropriate observatory placement and design to support the international effort in creating a Svalbard Integrated Observatory System [sios-svalbard.org]. To this end Ms David was included as a Co-investigator on a SIOS funded project to collate fundamental measurements (primarily temperature) from moored observatories around Svalbard and to make recommendations on how a future SIOS observing system might be configured.

Additional Experiential Training: One area of oceanography that is developing rapidly is the utilisation of robotic technologies for remote data collection. SAMS has been using gliders in the North Atlantic for the last eight years. Recently we have deployed a Slocum glider in the Barents Sea, just south of Svalbard. This presented an opportunity for Ms David to gain some knowledge and experience of a) how gliders are used to support data collection in science projects and b) the practicalities of management and piloting of gliders. During her time at SAMS she shadowed one of SAMS' senior glider technicians (Ms Estelle Dumont) during the preparation and deployment of the Slocum glider.

Professional Development: Ms David's visit to SAMS coincided with a teaching module for Masters level students in professional skills. As a means of integrating Ms David into the student community and to develop her knowledge of core professional skills, she participated in that module".

Please provide your comments on the performance of the trainee.

"Ms David was extremely engaged in the fellowship. She showed an energy and commitment to the work we had planned. Her computational skills were already excellent and she was able to develop data analysis and visualisation ideas from initial discussions through to quantitative understanding. The scientific discussions were very enjoyable – notably due to Divya's curiosity in the processes observed in the data. Beyond the core scientific work, Divya was happy to engage socially with other early-career researchers and also students based at Scottish Association for Marine Science".

Is this exchange likely to lead to future collaboration with the trainee's parent institution?

"I think there is scope for further collaboration. In the immediate future there is a research paper that we will prepare based on Divya's work at SAMS. There is also the potential for further involvement and supervision of her PhD program and we have bilateral discussions planned for that. Longer term, Divya and I discussed potential collaboration on Arctic observational programs. There is a current initiative call "Svalbard Integrated Observing System" which we will be contributing to and which will provide a platform for further joint work".

Please provide your comments on the Fellowship Programme:

“This is the first time I have become involved with the POGO Fellowship Programme. As the host institute it was very easy to engage with the application and the subsequent administration to permit the visit. I think there is great value for early-career researchers to pursue these Fellowships as a means of both increasing their skills through training but also developing institutional and international links. These can often be hugely formative and become the bedrock of their careers. The resourcing of the Fellowship was good – again, minimising the burden on the host institute. I will be recommending this to my colleagues and networks”.



Ankita Misra – India

Parent supervisor and institution: Dr. Balaji Ramakrishnan, Indian Institute of Technology, Bombay, India.

Host supervisor and institution: Dr Bertrand Chapron –French Research Institute for the Sustainable Exploitation of the Sea (IFREMER), France.

Fellowship period: 08/10/17 - 06/01/18.

Topic: *SAR based bathymetry estimation for utilization in coastal models.*

Report from Fellowship holder, Ankita Misra:

“At IFREMER, France, I aimed to learn SAR based bathymetry estimation using the concept of wave transformation, which is a part of my doctoral research. Dr. Chapron introduced me to a technique where sun glint optical imagery could be used with the same principle as SAR to derive the wave characteristics. This was an exciting topic as it provided me with an opportunity to understand and interpret both optical and SAR imagery for wave transformation studies. During, this time Dr Chapron also encouraged me to write my own codes for the analysis which was an interesting learning curve for me. I constantly interacted with Dr. Frederic, who taught me the important principles of ocean wave Noughier characteristics and their interpretation in satellite imagery. I learnt the concept and properties of sun-glint imagery and subsequently applied it to map the various parameters of ocean waves such as wavelength, phase etc. This was very important for my PhD objective as I further intend to use this information for predicting the near-shore bathymetry for my study region in India”.

What applications of the training received do you envision at your parent institution?

“The main objective for this fellowship was to learn SAR based bathymetry estimation which is important from the perspective of completion of my doctoral research at IIT-Bombay. On successful completion of this research which I started at IFREMER I should be able to write a publication for a peer reviewed journal, which is currently my immediate target. In my group at IIT-Bombay, there are very few people who work on Ocean Remote Sensing and hence, apart from my doctoral studies, I am also involved in a number of other coastal management related project activities. The training I got through this fellowship will enable me to improve the quality of research I conduct in my parent institution. Moreover, I am positive that through my experience more students will be motivated to take up ocean remote sensing as their area of interest”.

Please provide your comments on the Fellowship Programme:

“The POGO SCOR 2017 fellowship happened for me at a time when I really needed a fellowship to visit IFREMER to work with Dr. Bertrand Chapron. This programme is extremely beneficial for early career researchers, who get an opportunity to visit an international lab to build on their scientific skills and expertise through this fellowship. Apart from that, the cultural exposure that comes with it makes it a memorable experience both professionally and personally. So, I would like to thank POGO SCOR for this funding initiative which ensures that young scientists have some unique scientific interactions with the best in the field of oceanography.

I am really glad that I got a chance to work with Dr. Chapron on this topic. Apart from the fact that he is an expert in satellite oceanography, he is extremely patient and encouraging towards his students. His profound knowledge is truly inspirational”.

Report from host supervisor, Dr Bertrand Chapron:

“Ankita’s initial objective to come to IFREMER was to learn on ocean surface wave transformation to possibly estimate local bathymetry characteristics using high-resolution SAR imagery. I realised she had some experience in Optical remote sensing, and slightly modified the objective to introduced her to the same topic application but using sun glint imagery to study transformation of surface waves. Accordingly, she acquired a fair idea on how SAR images can be used, alone but also in synergy, since sun glint image analysis can essentially build on similar principles. I also encouraged her to write her own routines for the analysis in Matlab, something relatively new to her as she is more accustomed to use image processing software. During this period, she learnt the physical principles and the interpretation of sun glint properties, how to apply them for getting ocean wave characteristics (wavelengths, direction, amplitude), and subsequently the mapping of the various parameters to better understand wave transformation. The next step for Ankita is now to use the derived information to obtain more precise local bathymetry, which is basically the main objective for her doctoral studies”.

Please provide your comments on the performance of the trainee.

“First, Ankita was highly motivated, and demonstrated a real interest to learn more about the potential to use different types of satellite observations to provide geophysical information. Very rapidly, Ankita adjusted to the necessary computer tools and developments to perform advanced analysis. I must admit I was very impressed by her ability to rapidly gain autonomy to learn and understand about sensor physics as well as practical use of observations. I personally strongly appreciated her open-mindedness, but also her tenacity, to both follow instructions and to propose and apply interesting developments. My overall appreciation is thus very positive”.

Is this exchange likely to lead to future collaboration with the trainee’s parent institution?

“I have discussed the possibility of a journal paper with Ankita, on the completion of the research work she has carried out here at IFREMER. I have also encouraged her to continue this association and have ensured our support in the completion of her doctoral studies. Hence, I am positive that there will be some collaboration with IIT-Bombay, India and at least a joint publication in the near future”.

Please provide your comments on the Fellowship Programme.

“I strongly believe this fellowship programme is very beneficial for young researchers, like Ankita. She wanted to visit IFREMER for a while to gather experience in satellite Oceanography which was finally possible through the POGO SCOR 2017 scholarship. The fellowship provided her the opportunity to interact with several researchers in the field of Ocean Remote Sensing and Physical Oceanography, gave her an exposure of current International research and also provided her with some direction to further her doctoral studies. I am sure this would help her not only in the completion of her PhD, but will also contribute to achieving her goal to be an expert in this field”.