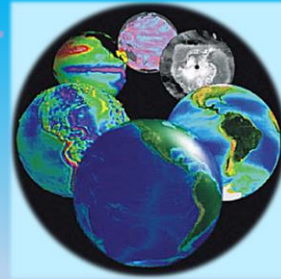


BULLETIN

of the

PORSEC

Association



Volume 10.3 December 2016

Dear Fellow Members of PORSEC Association,

This issue of our Bulletin of the Association brings you one of the reports from the highlights of our 2016 conference, namely about the Capacity building tutorial with some pictorial illustrations. We thank the chair of our Capacity building and outreach program, Stephanie King, our head instructor, Dr. Cara Wilson, and Professor Ana-Paula Morais Krelling of the Federal University of Ceara, Brazil, for organizing such a successful course. The PORSEC in 2016 had the theme: *Enabling Earth observations in support of global, coastal, ocean and climate change research and monitoring*. It was held in Fortaleza, Brazil on November 8-11, 2016 with the Capacity Building tutorial days from November 3 to 7. More details about the conference itself will come in the next issue of BPA.

We have a new president now, Dr. Gad Levy (co-editor of this bulletin) and we thank the retiring president Dr. DanLing Tang for her services during the past 4 years.

One of your editors, Kristina Katsaros, was very interested to hear about the 4 year drought in the Northeastern Brazil. It is very worrisome for the people in that province. Many spontaneous discussions and a special session on climate change occurred at this conference. More in the separate reports.

We had many rewarding and stimulating scientific exchanges during these days in a lovely environment, but too few PORSEC members managed to come all the way to Fortaleza, so next time we are returning to East Asia, when in 2018 we will meet in the republic of South Korea for the second time (last time was in 2006). The venue has not yet been set.

In this issue we also have a call for papers to be submitted to the Special issue of the International Journal of Remote Sensing. Instructions for submissions are included, and can also be found under updates on PORSEC home web page porsec.nwra.com.

With good wishes for success in your work and in your life during 2017!

Gad Levy and Kristina Katsaros

Co-Editors of the Bulletin

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Summary and highlights from the PORSEC 2016 capacity building tutorial

Fortaleza, Brazil, November 3-7, 2016

Stephanie King
Sea This Consulting
PORSEC Capacity Building and Outreach Chair
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and

Cara Wilson
NOAA Fisheries
PORSEC Head Instructor
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Overview

The objective of the PORSEC preconference tutorials is to bring expert training to countries interested in developing their remote sensing capability. Since 2004, tutorials have been held immediately before each PORSEC symposium and have provided valuable interaction between students and established, international researchers. Students are given theoretical lessons and practical exercises on remote sensing techniques used for monitoring the ocean-atmosphere system for research and operations. The tutorials are also an important opportunity for students to develop their professional network.

The 13th biennial Pan Ocean Remote Sensing Conference (PORSEC) and 7th Capacity Building Tutorial was held in Fortaleza, Brazil between Nov. 3 and 11, 2016. Both events were hosted by the Earth Observation Laboratory at Universidade Federal do Ceará, Instituto de Ciências do Mar (UFC-LABOMAR). LABOMAR's downtown Fortaleza campus provided an excellent location for the tutorial held from Nov. 3 to 7. The conference theme was 'Enabling Earth Observations in Support of Global, Coastal, Ocean and Climate Change Research and Monitoring' and was held at the Marina Park hotel in Fortaleza from Nov. 8 to 11.

The tutorial was attended by 15 students and early career scientists from 5 countries. Over 5 days, 9 international lecturers gave practical and theoretical lessons on various types of remote sensing data, where to access data and applications for use in research and operations.



Capacity building is a key focus and strength of the PORSEC Association

Details on the 2016 PORSEC Tutorial

The PORSEC 2016 tutorial included 4 international students (Turkey (1), Belgium (1), India (1) and Russia (1)) and 11 students from universities and institutes in Brazil (Table 1). Nine of the students were women (60%). The participants included post-graduate fellows, doctoral students and early career scientists as well as several exceptional undergraduate and Master's students. Their experience and interests ranged from oceanography to geology.

All of the students were encouraged to participate in the main PORSEC symposium following the tutorial.

The tutorial was co-taught by 9 instructors who enthusiastically volunteered their time to give overviews on different topics and examples from their research:

- Milton Kampel (fundamentals of visible remote sensing)
- João Lorenzzetti (fundamentals of thermal and microwave remote sensing)
- Cara Wilson (fisheries applications)
- Jim Gower (ocean color)
- Gad Levy (data assimilation)
- Abderrahim Bentamy (satellite wind data)
- Ana Paula (Statistical data analysis)
- Stefano Vignudelli (satellite altimetry)
- Leonid Mitnik (SAR data)

TABLE 1. PARTICIPANTS OF THE 2016 PORSEC CAPACITY BUILDING TUTORIAL.

Student	Country
Bulent Acma	Turkey
Barbara Barros Carlos	Brazil
Fransmagno do Nascimento Matos	Brazil
Lucas Ferreira Correa	Brazil
Raul Fritz	Brazil
Svetlana Karimova	Belgium
Patrícia Marroig	Brazil
Stefanny Matos	Brazil
Ankita Misra	India
Lea Nunes Teixeira	Brazil
Laymara Sampaio	Brazil
Meiry Skamoto	Brazil
Yuriy Titchenko	Russia
Monique Vinhas	Brazil
Erik Zarko Solha	Brazil

The lessons were split between theoretical lectures and practical exercises. A major portion of the tutorial was taught by Cara Wilson who gave a condensed version of her 3-day NOAA satellite data training course on tools to improve the import, discovery and extraction of a broad suite of available satellite data. Cara also guided students on tutorial

projects which were meant to encourage students to explore new datasets that might benefit their research. Students presented the project results on the last day of the tutorial. Each student or group had 5 to 10 minutes to present about 5 slides on their project. We also asked students to prepare a summary slide of their results that we could show at a summary of the tutorial during the main conference. The summary slides are shown below. The presentations were excellent especially considering the limited time students were given to work on them. Several students went on to present their tutorial project results at the main symposium.

The tutorial was organized locally by Ana Paula Morais Krelling and Antonio Geraldo Ferreira from LABOMAR UFC, and with input from Stephanie King, Gad Levy and Cara Wilson. It was facilitated by Stephanie King. Past POSREC president, Kristina Katsaros, took notes.

Students were asked to fill out evaluation forms at the end of the workshop. The response was overwhelmingly positive and students gave high praise the projects, presentations and practical exercises. Responses to the evaluation questions “What part of the tutorial did you find most useful?” included:

- The tutorial was an amazing experience and doing the projects were totally awesome
- Projects were very useful
- Appreciated the information on websites containing environmental public data

Responses to the evaluation questions “What part of the tutorial did you find least useful?” included: :

- Wished it was longer with more detail on techniques
- Preferred the practical sessions and thought some of the lecturers could have been provided as pdfs
- Would like more interdisciplinary interaction between students during projects
- Give more time for the exercises in each practical class



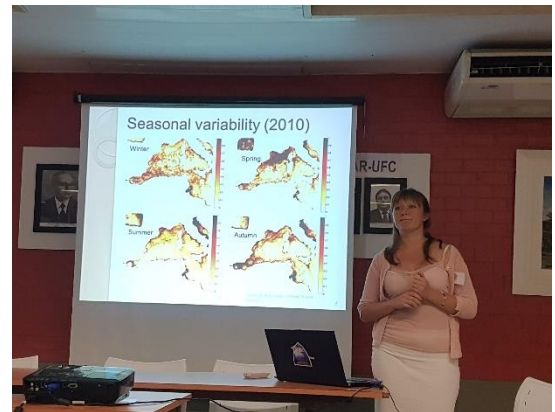
Students were also asked to score each tutorial session in terms of relevance, interest and overall enjoyment. The highest scoring sessions were An Introduction to Giovanni (J. Gower), Accessing Data with ERDDAP (C. Wilson), Accessing Data with ArcGIS/EDC (C. Wilson) and Ocean Colour (J. Gower). The lowest scoring sessions were EO in support of the water sector (E. Baeza), Fundamentals of Visible RS (M. Kampel), Oil spill detection (L. Mitnik) and Fisheries applications of RS data (C. Wilson).

There was no registration fee charged for the participants but students were required to cover their own travel expenses. LABOMAR provided the facility, computers, coffee breaks and all other costs associated with putting on the tutorial (printing, notebooks, etc.). Several social events were organized including dinners and an excursion to the beach.

ONRG provided 5K which was used to support two international students, one lecturer, one organizer and students' registration at the conference. PORSEC supported one Brazilian student and one of the tutorial dinners.

Ideally we would have had more students participating. In summer 2016, about 30 applications were received from students wanting to attend the tutorial but in the month prior to the tutorial 15 students withdrew due to insufficient funding or problems with obtaining travel visas. The conference also experienced many last minute cancellations. The local organizers attributed the cancellations to economic problems in Brazil, Zika virus and two other oceanographic conferences in Brazil with conflicting dates.

FROM TOP TO BOTTOM: STUDENT PRESENTING RESULTS FROM STUDENT PROJECT ON SST FRONTS IN THE MEDITERRANEAN; LECTURER A. BENTAMY HELPING A STUDENT DURING PROJECT TIME; LUNCH AT A CAFÉ NEAR LABOMAR.





Summary and future tutorials

The PORSEC 2016 Capacity Building Tutorial was a great success. The students were a group of very capable and enthusiastic individuals who really engaged in learning new remote sensing techniques. At least 3 of the students indicated their intent to submit a paper to the special issue of the International Journal of Remote Sensing.

Generally the tutorial format worked well. The students were from very diverse backgrounds and had a range of experience with satellite data which made some sessions difficult. Options for future tutorials might include a more in-depth application and screening process. Because of the very positive response in evaluations, student projects and presentations will definitely be repeated in future tutorials. We may also include a short lesson on preparing power points and giving presentations.

The next PORSEC will be held in Korea in 2018. We will plan another pre-conference tutorial following a similar format as in Brazil. There have also been discussions on putting on a PORSEC tutorial in the off-conference year.

Special Issue of the International Journal of Remote Sensing

Pan-Ocean Remote Sensing: Enabling Earth Observations in Support of Global, Coastal, Ocean and Climate Change Research and Monitoring

Selected papers resulting from the PORSEC 2016 meeting on enabling earth observations in support of global, coastal, ocean and climate change research and monitoring held in Fortaleza, Brazil, Nov. 3 to 11, 2016 will appear in a special IJRS issue.

How to Submit your Manuscript

All submissions will be peer reviewed according to the [International Journal of Remote Sensing](#) (IJRS) guidelines. Submitted manuscripts should not have been published or be under review elsewhere.

Prospective authors should consult the [Instructions for Authors](#) page on the journal homepage for guidelines and information on paper formatting and submission.

Authors should submit manuscripts using the IJRS manuscript central system at <https://mc.manuscriptcentral.com/tres>. Please choose 'IJRS Special Issue Paper' from the 'Manuscript Type' picklist on the submission form, irrespective of the paper type (i.e. even if your paper would normally be classified as a Research Letter, Tech Note, Research Paper, or Review Article). Also, please enter “PORSEC2016” in the space provided on the submission form for the name of the special issue.

IJRS has no page charges, and also does not charge for printing in color, if scientifically necessary. Open access publication is also possible, though a fee is charged for this.

[Click here for more information about open access options.](#)

Should you have any submission questions, please contact **Catherine Murray**, Administrator of IJRS at: IJRS-Administrator@Dundee.ac.uk.

Important Dates

Deadline for the submission of contributions: **February, 6, 2017**

Expected print publication date: **December, 2017**

Articles will be available online approximately one month after acceptance, final technical review and the completion of revisions for compliance with journal format. However, the paper copy of the special issue will be published only when all papers are accepted.

If you have any specific questions about the special issue, please contact the editorial team listed below.

Editorial information

Editorial Team:

Jim Gower, IOS, Fisheries and Oceans Canada, (Jim.Gower at dfo-mpo.gc.ca)

Stefano Vignudelli, Consiglio Nazionale delle Ricerche, Italy (vignudelli at pi.ibf.cnr.it)

Gad Levy, Northwest Research Associates, USA (gad at porsec.nwra.com)

Notes & Announcements of interest to **PORSEC** members

New issue of

The Indian Ocean Bubble-2

Issue-6 of “The Indian Ocean Bubble-2” has been published and is accessible along with archived issues at : <http://www.iioe-2.incois.gov.in/IIOE-2/Bubble.jsp>

Opportunities

UNESCO opportunity for African women

Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO) is looking for the CV of African women specializing in the fields of Application of Satellite Remote Sensing and Earth Observation to Coastal and Marine Environment in Africa for opportunities. For details please contact:
Justin AHANHANZO
IOC Regional Liaison Officer for Latin America and the Caribbean, Asia and the Pacific and Africa

Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO)

UNESCO, 7 Place de Fontenoy
75352 Paris Cedex 07 SP France
Tel: 33-1 45 68 36 41
Fax: 33-1 45 68 58 10/12/13
E-mail: j.ahanhanzo at unesco.org
URL: <http://ioc.unesco.org>

Asia region co-editor for PORSEC Bulletin

The Bulletin of the PORSEC Association’s editors are looking for an Asia region co-editor/bureau chief to report on news worthy items, opportunities and stories of interest to the PORSEC membership from Southeast and East Asia regions.

If interested, contact Gad or Kristina (editors of the PORSEC Bulletin).

Articles for PORSEC Bulletin

We are inviting informal articles for the next issue of The Bulletin of the PORSEC Association, published 3 times a year. Contributions related to Atmosphere, Climate and Ocean studies, Remote Sensing of the Ocean and Atmosphere, conferences and workshops etc. are welcome.

Contact Gad or Kristina (editors of the PORSEC Bulletin).

Articles related to Indian Ocean studies wanted

IIOE India (iioe (at) incois.gov.in) is inviting informal articles for its next issue of “The Indian Ocean Bubble-2”, tentatively scheduled for July 2017. Contributions related to Indian Ocean studies, cruises, conferences and workshops etc. are welcome and articles may be up to 1500 words in length

accompanied by suitable figures and photos. For all contributions, photos of the first four authors with their short bios may be provided. (Remaining authors will be listed in name.)

Meetings and Workshops



Submit an abstract to 2017 Sea Level Changes Conference.

The World Climate Research Program and Intergovernmental Oceanographic Commission are organizing an international conference on "Regional Sea Level Changes and Coastal Impacts" to be hosted at Columbia University July 10-14, 2017. The conference program is designed to provide an evaluation of the current state of sea level science, outline future research and observational requirements for improving our understanding of sea level rise and variability, and identification of stakeholder needs for sea level information for coastal planning and management. Abstract submissions are due February 15.



13th Annual Polar Technology Conference

April 11-12, 2017, Denver, Colorado

The conference brings together polar scientists and technology developers to exchange information on research system operational needs and technology solutions for polar environments.

Abstracts are due March 28.



2nd WCRP Summer School on Climate Model Development

July 17-28, 2017, Cachoeira Paulista, Brazil

INPE/CPTEC is hosting this WCRP summer school to provide Ph. students, postdocs, and young scientists theoretical background of the suite of scale-aware parameterizations used to represent convective processes in gray-zone climate models.

Applications are due February 16.



2017 CESM Tutorial

August 14-18, 2017, Boulder, Colorado

The annual tutorial on the Community Earth System Model (CESM) will feature lectures on simulating the climate system and practical sessions on running CESM, modifying components, and analyzing data. The meeting is targeted at the graduate student level.

Applications are due March 4.



10th International Carbon Dioxide Conference

August 21-25, 2017, Interlaken, Switzerland

The 10th International Carbon Dioxide Conference will provide participants with an integrated, interdisciplinary view of the global carbon cycle and its perturbation by humans. The conference will consider spatial scales, ranging from local and regional to global syntheses, and address multiple time scales. Abstracts are due February 28.



2017 Joint IAPSO-IAMAS-IAGA Assembly

August 27-September 1, 2017, Cape Town, South Africa

The meeting seeks to advance the understanding of the land-ocean-atmosphere-ice climate system, with a focus on physical oceanography, meteorology-atmospheric science, and geomagnetism. The focus will be on South Atlantic, Indian, and Southern Ocean exchanges, including a session on the meridional overturning circulation. *Abstracts are due March 12.*



GODAE OceanView Summer School 2017

October 2-13, 2017, Mallorca, Spain

The international school for observing, assimilating, and forecasting the ocean is a two-week program offered to early career scientists, professionals, and students on the current state of the art in operational oceanography and related advances in the ocean sciences. *Applications are due February 28.*

Call for contributions to upcoming bulletins

We are inviting informal articles for upcoming issue of
The Bulletin of the PORSEC Association
published 3 times a year.

Contributions related to Atmosphere, Climate and Ocean
studies, Remote Sensing of the Ocean and Atmosphere,
conferences and workshops etc. are welcome
and articles may be accompanied by suitable figures and
photos.

Contact Gad or Kristina
(editors of the PORSEC Bulletin).

PORSEC Database

For our database of the PORSEC Association members we would like you to enter your information directly into our web membership form, if you haven't already done so: [click here for the membership form](#).

Please fill this form even if you have already given the information to us in any other format since we may not have all that information down correctly. Please use this form to update your information whenever you have any changes. It can also be used to pay your membership fee. This form is also accessible through our [main page](#) by clicking on "Join the PORSEC Association".

Please work on getting us more members; use the PORSEC home page and the above links for information. The prospective member provides us with the same information through the form. We will bill the person for the membership fee, which can now be paid via "Pay Pal" on the Internet.

Information

For information about the association and links to Newsletters from the president and Bulletin issues, [click here](#). To join the PORSEC Association go to membership on the web site or contact one of us -directly. The Bulletin of the PORSEC Association is edited by Gad Levy and Kristina B. Katsaros. Production Editor -Susanne Öhrvik. We welcome contributions about your work and about any activities of our PORSEC members that may be of interest to other members for future issues of the Bulletin. To submit articles for this Bulletin of the -PORSEC Association, please contact gad at porsec.nwra.com or katsaros at porsec.nwra.com.