

A topographic map of North Africa, showing the continent's terrain in shades of green and brown. The map is overlaid with a grid. The text 'NAGET' is written in large blue letters across the center of the map.

NAGET

North African Group for
Earthquake and Tsunami studies:

**A transnational initiative for a realistic
hazard assessment and risk mitigation**



North African Group for Earthquake and Tsunami studies
ICTP Science Network


Research projects

Since the inception of the network in 2000, NAGET members coordinated or participated to the following projects :

1. IGCP 382: Seismotectonics and Seismic Hazard Assessment of the Mediterranean Basin, led by D. Giardini (Italy), K. Makropoulos (Greece), J. Mezcua (Spain), S. Riad (Egypt): **1996-2000**.
2. IGCP 414: Seismic Ground Motion in Large Urban Areas led by G.F. Panza (Italy): **1997-2001** (Rome, Zagreb, Debrecen, Bucharest, Delhi, Beijing, Naples, **Algiers, Cairo**, Santiago de Cuba, Thessaloniki, Sofia, Russe)

3. IGCP 457: Seismic Hazard and Risk Assessment in North Africa led by **D. Benouar*** (Algeria), G. Panza (Italy), **El-Sayed Attia** (Egypt), T. Benaissa (Morocco), M. Chadi (Tunisia), **S. Abdennur** (Libya): **2001-2005**
4. Neodeterministic SH in North Africa (Algeria, Egypt, Libya, Morocco and Tunisia, Italy) , led by **D. Benouar** (Algeria), **T. Mourabit** (Morocco), G.F. Panza (Italy), terminated in **2012**
5. IGCP 601: Seismotectonics and Seismic Hazards in Africa (African countries, France, Belgium, Portugal), led by **Mustapha Meghraoui** (France), Vunganai Midzi (South Africa), Atalay Ayele (Ethiopia), **Djillali Benouar** (Algeria): **2011-2014**

6. GEM Regional Programme of North-Africa (frozen because of lack of funding): **2010-2012**
7. Algeria-Italy bilateral project: Support for education and protection of environmental and cultural heritage in the prevention of earthquakes and tsunami in Algeria (Friuli-Venezia-Giulia region, Algeria) coordinated by ICTP (Italy), DGRSDT, USTHB, **NAGET** (Algeria): **2012-2014**

- 
8. Italy-Algeria-Iran-Tunisia multilateral project: Support for education and protection of environmental and cultural heritage in the prevention of earthquakes and tsunami in Algeria, Iran and Tunisia coordinated by ICTP: **2016-2018.**

9. Moho characteristics beneath Northern Africa region, proposed by **Ahmed Hosny** (Egypt).



10. IGCP 659: Seismotectonics and Seismic Hazard in Africa (SEISMOHAF) led by **Mustapha Meghraoui** (France), Vunganai Midzi (South Africa): **2018-2021.**



*Names written in bold are those of NAGET members

Workshops and Working Sessions held in the framework of these projects

1. First workshop on Seismic Risk in North Africa, Mansourah, Egypt, **2000**.
2. Second workshop on Seismic Risk in North Africa, 14-16th May, **2001**, Tetouan-Morocco
3. Euro-Mediterranean Conference on Natural, Environmental and Technological Hazards, USTHB, Algiers, Algeria 8-10 October **2001**

4. 3rd International workshop on Seismic Risk in North Africa, 20-22 May **2003**, Mansourah, Egypt



5. Working Session for the preparation of the input data for deterministic SHA in NAF (Algiers, December **2005**)



6. Then a working session was held in Tanger in **2007** for the preparation of the thematic maps

7. Working Session to finalize the paper on neodeterministic SHA in NAF (Tunis, May 2012)

J Seismol
DOI 10.1007/s10950-013-9375-2

ORIGINAL ARTICLE

Neo-deterministic seismic hazard assessment in North Africa

T. Mourabit · K. M. Abou Elencan · A. Ayadi · D. Bensuar · A. Ben Salem · M. Bezeghoud · A. Cheddadi · M. Chourak · M. N. ElGaby · A. Harbi · M. Hfaiedh · H. M. Hussein · J. Kacem · A. Ksentini · N. Jubour · A. Magrin · S. Maouche · M. Meghrani · F. Ousadou · G. F. Panza · A. Peresan · N. Romdhane · F. Vaccari · E. Zuccolo

Received: 6 February 2013 / Accepted: 22 May 2013
© Springer Science+Business Media Dordrecht 2013

Abstract North Africa is one of the most earthquake-prone areas of the Mediterranean. Many devastating earthquakes, some of them tsunami-triggering, inflicted heavy loss of life and considerable economic damage to the region. In order to mitigate the destructive impact of

the earthquakes, the regional seismic hazard in North Africa is assessed using the neo-deterministic, multi-scenario methodology (NDSHA) based on the computation of synthetic seismograms, using the modal summation technique, at a regular grid of $0.2 \times 0.2^\circ$. This is

Electronic supplementary material The online version of this article (doi:10.1007/s10950-013-9375-2) contains supplementary material, which is available to authorized users.

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Published online: 21 June 2013

 Springer

The paper is a fruit of a collaborative effort between NAGET members and colleagues from ICTP and Trieste University

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8. GEM North-Africa Workshop



النموذج العالمي للزلازل ورشة عمل تحضيرية
GEM North-Africa Kick-off Workshop

دراسة وتقييم المخاطر الزلزالية في أفريقيا الشمالية
معايير مخاطر الزلازل والآثار الاجتماعية والاقتصادية
**Seismic Hazard and Risk assessment
in North-Africa : Standard earthquake risk
and socio-economic impact**

ملخصات ABSTRACTS



26-27 مايو 2011 المركز الوطني للبحث العلمي والتقني الرباط المغرب
26 and 27 May 2011 CNRST - Rabat, Morocco

Workshops and Working Sessions



المعهد الوطني للجيوفيزياء
NATIONAL INSTITUTE
OF GEOPHYSICS

GEM North-Africa Kick-off Workshop Programme

**"Seismic Hazard and Risk assessment in North-Africa:
Standard earthquake risk and socio-economic impact".**

26 and 27 May 2011

at CNRST, Angle Avenue Des FAR et avenue Allal El Fassi, Hay Riad,
Rabat, Morocco

Scientific committee:

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* North African Group of Earthquake and Tsunami studies

** <http://www.globalquakemodel.org>



GEM NAF workshop: 26-27 May 2011, Rabat

9. GEM North-Africa Workshop



GEM North Africa 2nd workshop Tunis 3-4 May 2012

Harmonization of data inputs for the seismic hazard
and risk assessment in North Africa

Thursday 3 May 2012	
08:30-09:00	Registration
09:00-09:30	Official opening ceremony Ministry of Higher Education, ENIT
09:30-09:45	NAGET role in Mitigating Earthquake Hazards in North Africa <i>A. Harbi and M. Meghraoui</i>
09:45-10:00	Global Earthquake Model GEM <i>R. Pinho</i>
10:00-10:15	GEM Sub-Sahara regional program <i>A. Avelo</i>
10:15-10:45	Break
10:45-12:45	Homogenous Earthquake catalogue <i>Conveners: D. Benouar and A. Ben Suleiman</i>
	GEM Global Component on Historical Seismology <i>M. Stueckli and P. Albini</i> 20"
	Integration and magnitude homogenization of earthquake catalogues <i>A. Harbi, N. Jabour</i> 20"
	Round table discussion <ul style="list-style-type: none"> • Earthquake catalogue parameters. • Reviewing the current NAGET and other national catalogues. • Reviewing the historical earthquake catalogue from all available sources. • Homogenized and Harmonized earthquake catalogue criteria and bases
12:45-14:15	Lunch
14:15-16:15	Seismotectonic characteristics of North Africa <i>Conveners: M. Meghraoui and H. Hoessein</i>
	Seismicity and tectonics along plate boundary in North Africa <i>M. Bezzeghoud</i> 20"
	Active tectonics in North Africa <i>M. Meghraoui and H. Hoessein</i> 20"
	Round table discussion <ul style="list-style-type: none"> • Seismotectonic model guidelines. • Compiling earthquake parameters in North Africa. • Digitization of active faulting maps. • Database for crustal structure.
16:15-16:30	Break
16:30-17:30	Software Demo's <i>M. ElGahry</i>
17:30-19:00	GEM NAF Steering committee Business meeting
17:30-19:00	GEM Secretariat and Gulf countries representatives Business meeting

Workshops and Working Sessions





IGCP Project 601 Kick-off Meeting
Windhoek (Namibia), 26 – 29 September, 2011

Seismotectonics and seismic hazards in Africa

<http://wost.u-strasbg.fr/~igcp601/index.html>

ABSTRACTS VOLUME

Date and venue: Organised in the frame of the annual meeting of the Organisation of African Geological Surveys (OAGS) <http://www.oagsafrica.org/>, the IGCP Project kick-off meeting takes place on 26 - 29 of September 2011 in Windhoek (Namibia).

Meeting Programme:

26th September: Scientific sessions

- The sub-Saharan seismotectonic provinces
- The North Africa seismotectonic provinces
- Discussion

27th – 28th September: Field visit to the Erongo geological province

29th September: OAGS – IGCP business meeting



NAGET members participating to the IGCP 601 Workshop, Windhoek (Namibia) the 26-29 September **2011**



Workshop on the Seismotectonic Map of Africa

Organized by the UNESCO - IGCP - 601 SIDA Project

30 – 31 May 2013

Ibn Zohr University, Agadir (Morocco)

In collaboration with:

- IGCP 601 "Seismotectonic and seismic hazard of Africa",
- NAGET "North Africa Group for Earthquake and Tsunami"
- Geology Department, Faculty of Science, Ibn Zohr University, Agadir

The symposium addresses the challenges for the assessment of a realistic seismic hazard and risk in Africa. One of the major issues is the underestimation of seismic hazard in Africa due to the long recurrence of large earthquakes. This fact overburdens the scientists with not only fundamental research but also with the challenge of convincing the decision makers. National and International scientific programs dealing with the seismic risk assessment are increasing in seismically active regions in Africa. New seismotectonic data with regional analysis of the earthquake hazards provide the basis for a mitigation of the earthquake damage.

Participants from all African Countries involved in the IGCP - 601 activities are encouraged to participate in this workshop. The themes of the session are related with local and regional studies:

- 1- Seismotectonics and seismicity of Africa
- 2- Building a homogeneous database of seismic parameters
- 3- Improving the seismotectonic database in regional gaps
- 4- Tsunami threats for African coasts
- 5- Seismic hazard assessment and models.

Please send your title and abstract to :

Dr. Alaedddine Belfoul mailto:// aladinbel@yahoo.fr

and to Dr Mohamed El Gabry mailto:// mohamedelgabry@hotmail.com



NAGET members participating to the IGCP 601 Workshop, Agadir (Morocco) the 30-31 May 2013

❖ More than 60 NAGET members (out of 85 from Maghreb, Egypt and Jordan) participated to the school among whom young scientists and PhD students.

❖ The following topics were addressed:

- ✓ Seismology and seismometry
- ✓ Tsunami & earthquake physics
- ✓ Crustal deformation & active tectonics
- ✓ Tsunami geology
- ✓ PSHA
- ✓ Site effects and seismic microzonation
- ✓ Forensic investigations of disaster
- ✓ Seismic risk assessment
- ✓ Disaster management
- ✓ Building disaster management in the community

12. Algeria-Italy bilateral project (school funded by FVG, ICTP, CRAAG and NAGET)



School on Earthquake and Tsunami Hazard and Risk

9 - 20 December 2013
Algiers, Algeria

The Abdus Salam International Centre for Theoretical Physics in collaboration with Centre de Recherche en Astronomie, Astrophysique et Geophysique (CRAAG), Centre de Genie Parasismique (CGS), University Houari Boumedienne (USTHB) and the Algerian Research Council (DGRSDT), is organizing a *Winter School on Earthquake and Tsunami Hazard and Risk* to be held from 9 to 20 December 2013 in Algiers, Algeria.

This school is co-funded by:

- 1- Regione Friuli Venezia Giulia (LR. 19/2000) in the framework of the Project SEPTTA: Sostegno all'Educazione e alla Protezione del patrimonio ambientale e culturale nell'ambito della Prevenzione di Terremoti e Tsunami in Algeria;
- 2- IUGG: International Union of Geophysics and Geodesy;
- 3- CRAAG: Centre de Recherche en Astronomie, Astrophysique et Géophysique, Algiers
- 4- USTHB Periperi U: 'Partners Enhancing Resilience to People Exposed to Risks'

The goals of this school are to build capacity in the theory of modern seismological and geodetic methods and give a basic understanding that underlies their applications to problems in earthquake and tsunami hazard assessment and computation. The school will tackle recent developments in seismic risk assessment and disaster management and learn from recent study cases: the 2003 Boumerdes earthquake, the 2009 L'Aquila earthquake and the 2012 Emilia earthquake. The school is intended for graduate students, post-doctoral fellows, and early career scientists interested in these fields.

The school will inform, motivate and train its participants, through a series of lectures, seminars and practical exercises. Participants are encouraged to present their own research in dedicated poster sessions.

PARTICIPATION:

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the Workshop. As it will be conducted in English, participants should have an adequate working knowledge of that language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, North African countries, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee.

HOW TO APPLY FOR PARTICIPATION

The application form can be accessed at the activity website
<http://agenda.ictp.it/smr.php72506>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

ACTIVITY SECRETARIAT:

Telephone: +39-040-2240576 Telefax: +39-040-2240585
E-mail: smr2506@ictp.it ICTP Home Page: <http://www.ictp.it/>



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Regione Friuli Venezia Giulia



IUGG



CRAAG



DGRSDT



USTHB



CGS



DEADLINE
for requesting participation
21st October 2013



The School on Earthquake and Tsunami Hazard and Risk, 9-20 December **2013**, USTHB, Algiers, Algeria



NAGET members participating to the IGCP601-Africa joint meeting, Johannesburg (South Africa) the 20-27 January 2014



NAGET members participating to the IGCP601-Africa Array joint meeting, Johannesburg (South Africa) the 20-27 January 2014



NAGET members participating to the **IGCP-601 session** at the 25th Congress at African Geology, Dar-Essalam, 14-17 August 2014



Kick-off Meeting of the Earthquake Hazard programme co-funded by the Regione Friuli-Venezia Giulia involving Algeria, I.R. of Iran, Tunisia and Italy, **3-7 May 2016**. Visit to the FVG Civil Protection²³



CAIRO, 24-26 OCTOBER 2017 UNDERSTANDING RISKS IN AFRICA FOR A BETTER REDUCTION

Lessons learnt from 1992 Cairo Earthquake in its 25th Anniversary

Africa is vulnerable to wide range of natural hazards, although the most common natural hazards in Africa are mainly drought and floods, but earthquakes, cyclones and volcanic eruptions also, represents a major threat. We work to foster the efforts in the continent to better understand hazard and mitigate their risks by gathering experts working in these fields along together to come with work actions to mitigate such Risks.



African Union
Scientific Technical Research Commission



NRIAG

Gathering experts
working in all
relevant fields

Seismotectonic
Map of Africa: A Key
Component for
Seismic Hazard and
Risk Assessment

Climate change and
environmental
vulnerability in
Africa

Foster the
implementation of
Sendai Framework
for Disaster Risk
Reduction in Africa

NRIAG

Cairo, Cataract Pyramids
Hotel, Giza, Egypt
24-26 October 2018
contact us:
elgabry@nriag.sci.eg

NAGET members attended the business meeting for the SEISMOHAF project and presented key-note lectures on Mitigating the Impact on Natural Risks in Africa and Profiling Advances in DRR/DRM Science and Academic Engagement in Africa



Working session on the IGCP-659 project: Seismotectonics and Seismic Hazard in Africa, 2nd Assembly of the African Seismological Commission (AFSC), Al-Hoceima, Morocco, 23-27 April 2018

Co-organization, co-sponsoring of regional scientific events and support to NAGET members to attend

NAGET provides its members with financial support to attend regional scientific events, allowing them to present their last achievements. These events, which brings together leading and young scientists, enables the NAGET members to spend a very fruitful time of sharing knowledge, building relationships and planning projects:

1. Sixth Maghrebien Colloquium of Applied Geophysics, 3-5 May **2013**, Meknes, Morocco.
2. International Conference on Natural Hazards and Geomatics, 17-20 May **2013** , Hammamet, Tunisia

■ Participation Fee

- 300 DT for Tunisian graduate students
- 400 DT for Tunisian participants
- 300 DT for accompanying person
- 300 Euros for foreign participants
- 200 Euros for foreign accompanying person

The participation fee includes: accommodation for 03 nights (5 stars hotel), registration, logistics, lunches and coffee breaks, opening reception, closing dinner.

These fees are payable by cash in the registration desk or by bank transfer to the Tunisians Association of Applied Geologies CCB: Agence BIAT Sfax Hached.

RIB : 08 702 0004310004591 90

For foreign delegate (SWIFT: BIAT TN TT SFX) :

IBAN :TN59 08 702 0004310004591 90

■ Field Trip : May 20th-21st, 2013

-200 DT/100 €

■ Frais de participation

- 300 DT pour les étudiants chercheurs tunisiens
- 400 DT pour les participants tunisiens
- 300 DT pour personne accompagnante
- 300 Euros pour les participants étrangers
- 200 Euros pour les personnes accompagnantes étrangères

Les frais de participation couvrent l'inscription, la documentation, l'hébergement pour 03 nuits, les repas et les pauses café.

Ces frais sont à régler en espèces, par bon de commande, par chèque libellé à l'ordre de l'Association Tunisienne de Géologie Appliquée ou par virement bancaire au CCB: Agence BIAT – Sfax Hached.

RIB : 08 702 0004310004591 90

Pour les étrangers (SWIFT: BIAT TN TT SFX) :

IBAN :TN59 08 702 0004310004591 90

■ Excursion : Mai 20-21, 2013

-200 DT /100€

www.atga.fr/icnhg2013.php

email: icnhg2013@atga.fr

■ President

Pr. BOUAZIZ Samir (Univ. Sfax-Tunisia)

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www.atga.fr/icnhg2013.php

email: icnhg2013@atga.fr

First announcement and Call for participation

International Conference on Natural Hazards and Geomatics Hammamet - Tunisia, May 17th-20th, 2013

Organized By

The Tunisian Association of Applied Geology (ATGA)

The Tunisian Association of Geomatics (ATG)

&

The Research Laboratory: « Water-Energy-Environment »
(L.R. AD-10-02, Sfax University)

In collaboration with

North African Group for Earthquakes and Tsunamis Studies
(NAGET)

&

Center for Research on terrestrial Environment
(CRET, Lausanne-Switzerland)

Première Circulaire et appel à Contribution

Congrès International sur les Risques Naturels et Géomatiques Hammamet- Tunisie, 17-20 Mai 2013

Organisé par

L'Association Tunisienne de Géologie Appliquée (ATGA)

L'Association Tunisienne de Géomatique (ATG)

&

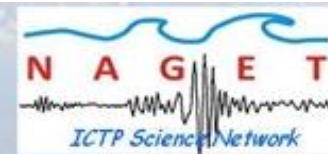
Le Laboratoire de Recherche : « Eau-Energie-Environnement »
(L.R. AD-10-02, Université de Sfax)

En collaboration avec

Groupe Nord Africain pour l'étude des Séismes et Tsunamis
(NAGET)

&

Centre de recherches en environnement terrestre
(CRET, Lausanne-Suisse)



Sous le haut patronage de Monsieur le Ministre de l'Intérieur et des Collectivités Locales

3. International Symposium on The large Mediterranean Earthquakes from past to present, 21-23 May 2013, Algiers, Algeria

MINISTRE DE L'INTERIEUR ET DES COLLECTIVITES LOCALES
Centre de Recherche en Astronomie, Astrophysique et Géophysique

CRAAG

International Symposium, Algiers 21 - 23 May 2013

Commemoration of the Boumerdes earthquake of 21 May 2003 (Mw 6.8), 10 years after

**THE LARGE MEDITERRANEAN EARTHQUAKES:
FROM PAST TO PRESENT**

ASAL

ICTP

IASPEI

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E-Mail: symposium2013@craag.dz
<http://www.craag.dz/symposium2013>

NAGET
ICTP Science Network

RSAT

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE SCIENTIFIQUE
DIRECTION GÉNÉRALE DE LA RECHERCHE SCIENTIFIQUE ET DU DÉVELOPPEMENT
TECHNOLOGIQUE. DGRSDT

ALGERIAN NETWORK FOR MARINE SCIENCES

COASTAL HAZARD AND RISK GROUP

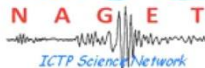
INTERNATIONAL MEETING ON EARTHQUAKES & TSUNAMI HAZARD IN THE MEDITERRANEAN

Algiers 8-9 June 2013, UDES, Bousmail, Tipasa, Algeria

www.rasmer.org

hazard.risk.rasmer@gmail.com

4. International Meeting on Earthquakes and Tsunami Hazard in the Medierranean, 8-9 June **2013**, Bousmail, Algeria



LABORATOIRE DE
GEODYNAMIQUE
DES BASSINS
SEDIMENTAIRES ET DES
OROGENES.
FSTGAT. USTHB





The poster for the Fourth Arab Conference on Astronomy and Geophysics (ACAG-4) 2014 features a blue background with a world map and a stylized globe. The title is written in English and Arabic. Logos of sponsors and partners are displayed on the left, and the program and book of abstracts information is on the right.

**The Fourth Arab Conference
on Astronomy and Geophysics**
2014

المؤتمر العربي الرابع في الفلك والجيوفيزياء
2014

**The Fourth Arab Conference
on Astronomy and Geophysics**
2014

ACAG-4

**PROGRAM
AND BOOK
OF ABSTRACT**
www.acag4.com

National Research Institute of Astronomy and Geophysics
P.O.Box 138 Helwan - 11421 - Cairo - Arab Republic of Egypt.
www.nriag.sci.eg
www.acag4.com
acag4@nriag.sci.eg

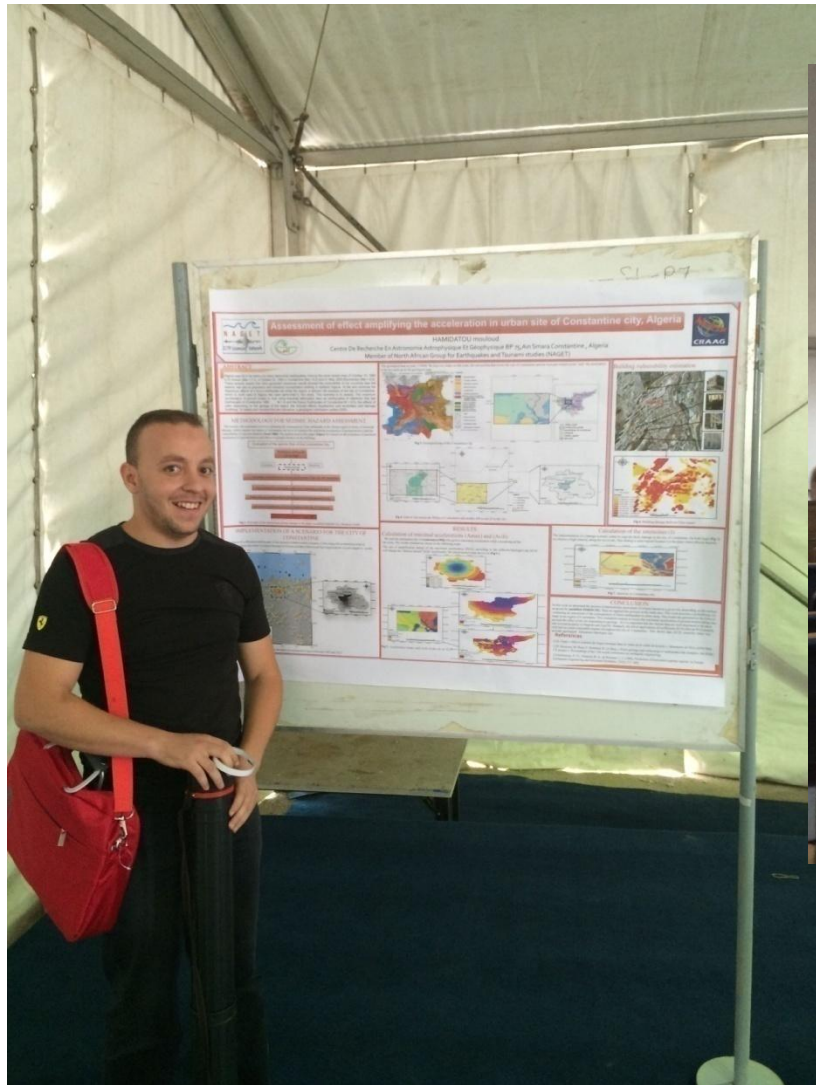
Tel.: 0111 330 95 95
Fax: +20 2 2554 80 20

Sponsors and Partners: ZONE TECHNOLOGIES, UNESCO, OPVM, EAGE, NAGET, Vodafone.

5. The Fourth Arab Conference on Astronomy and Geophysics, 20-23 October **2014**, Cairo (Egypt)

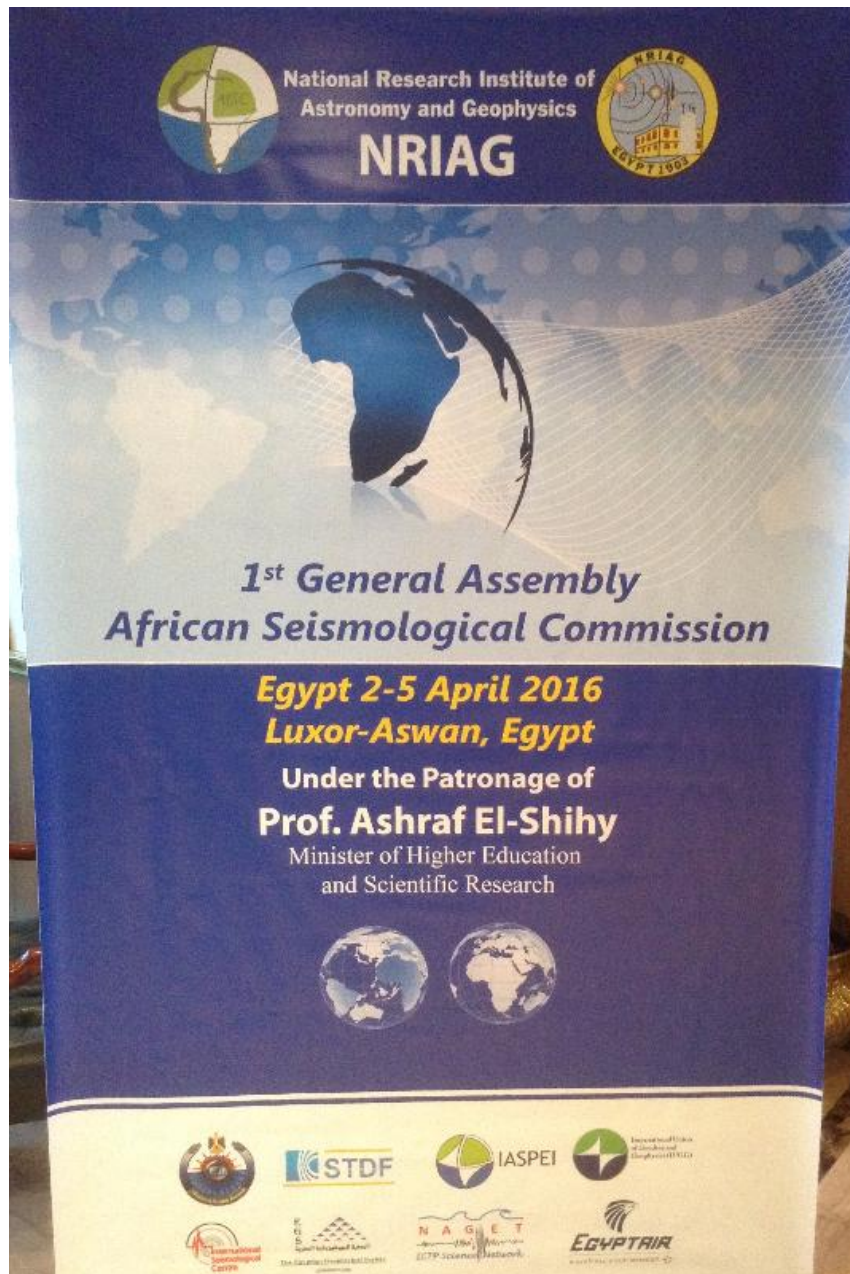


The Fourth Arab Conference on Astronomy and Geophysics (ACAG4), 20-23 October **2014**, Cairo (Egypt)



Mouloud Hamidatou, a young scientist from CRAAG (Algeria) next to his poster at the ACAG 4

Mouloud receiving, from Dr. Abbas (NRIAG), the award for the best poster presented at the ACAG 4



6. The 1st General Assembly of the African Seismological Commission **2016**, Luxor-Aswan (Egypt)



6. The 1st General Assembly of the African Seismological Commission **2016**, Luxor-Aswan (Egypt)



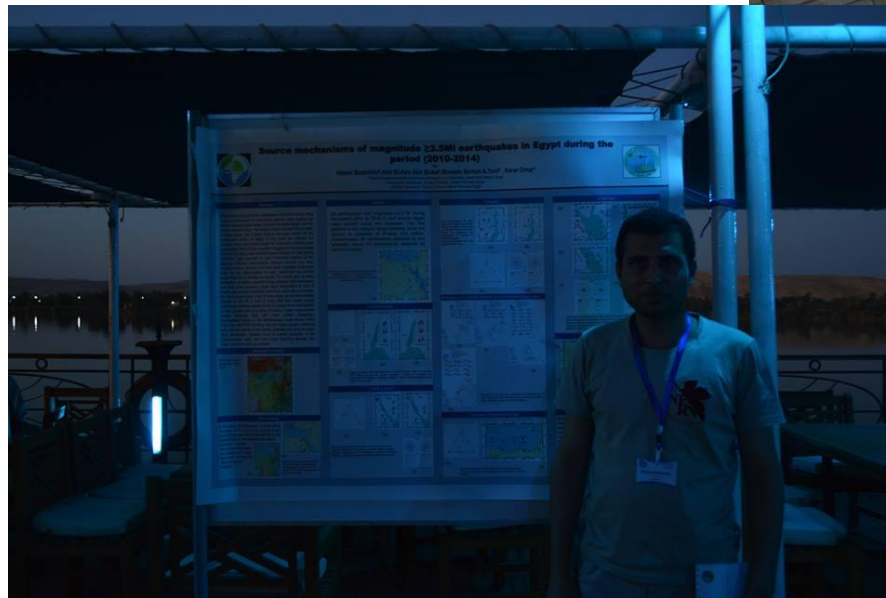
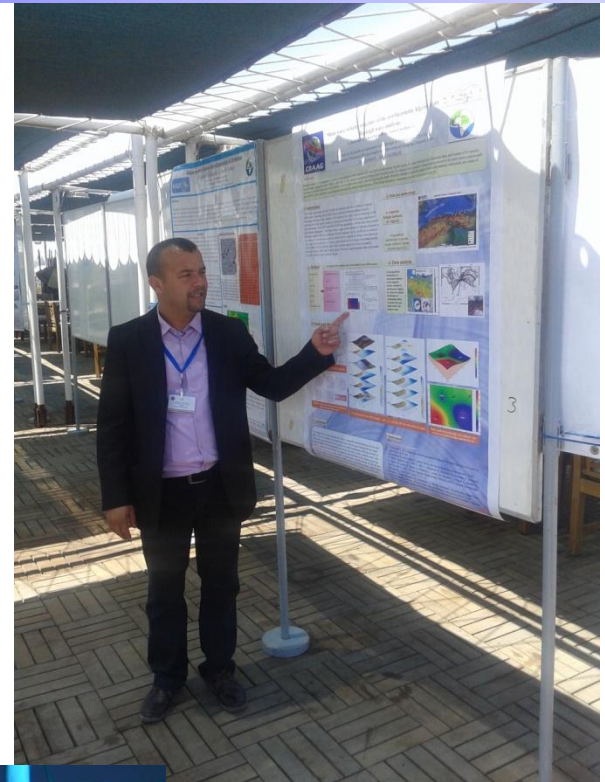
The 1st Assembly of the African Seismological Commission,
2-5 April **2016**, Luxor-Aswan (Egypt)



The 1st Assembly of the African Seismological Commission,
2-5 April **2016**, Luxor-Aswan (Egypt)



Issam Bacha (left) and
Zohir Radi (right)



Hazem Badreldin, the
Winner of the best poster
at AFSC2016

NAGET members acknowledge the contributions of the NAGET Coordinator towards the activities of the Group

AFSC 2016



Prof. Hesham Hussein on behalf of NAGET members summarizes the achievements of NAGET since 2010 and honours the NAGET Coordinator



Prof. Assia Harbi said that if there is a successful outcome, that success is above all due to the kind cooperation and efficient contributions of the NAGET members. She also thanked the whole community for their trust



1st Colloquium on the Geology of the Maghrebides, 4-6 December 2016, Sétif (Algeria)

Awareness-raising

NAGET organizes or takes part to the awareness-raising activities related to the geological and environmental hazards.

In view of the COP21 held in Paris (30/11 – 12/12 2015), NAGET collaborated with the USTHB, the Ministry of National Education, the Ministry of High Education and Scientific Research and the Algerian Radio to the organization of an international conference on the 28 November 2015

The children and the climate changes and sustainable development

بالتنسيق مع

جامعة هواري بومدين للعلوم و التكنولوجيا

و

الإذاعة الوطنية
تنظم

ندوة دولية : الطفل في مواجهة التغير المناخي و التنمية المستدامة

الطفل معني بصنع القرار من أجل مستقبل أفضل

28 نوفمبر 2015

قاعة عيسى مسعودي، الإذاعة الجزائرية، الجزائر

Before the conference



The Conference was entirely prepared by the pupils under the supervision of their teachers and four initiators from **NAGET**: Yacine Hemdane, Abdelhakim Ayadi , Said Maouche and Assia Harbi

28/11/2015

Before the conference



The conference was widely advertised before, during and after the event by the Algerian Radio, TV, and Press

28/11/2015

During the conference

Awareness-Raising



The Conveners session

The Speaker

At the end of the Conference the pupils listed the recommendations on how to face the climate change and to ensure a sustainable development and gave it to the Minister of Communications to be transmitted to the participants of the COP21

28/11/2015





The Minister of Communication (1) and the Minister of National Education (2) with the kids

28/11/2015

Group photo after the conference



Two-hundred pupils coming from all over the country with others from the international schools (from all over the continents) participated to the conference

28/11/2015

Cooperation South-South, within NAGET

NAGET encourages relationships between North African scientists and supports their exchange of visits



The NAGET member Mohamed El Gabry and his colleague Ahmed Abdelazim (NRIAG, Egypt) assisting their colleagues, from the Sudanese Seismic Network, in resolving technical details of their stations and teaching them how to use the related software





Well done !



The cooperation led to the signature of a MoU between NRIAG (Egypt) and SSN (Sudan) in *April 2016*



NAGET members from Algeria and Egypt looking for tsunami deposits and boulders along the Northern Egyptian Coast: Marsa Matrouh, June **2014**



Marsa Matrouh, June 2014



06/06/2014 10:58

Well done!



The cooperation led to the first talks about a MoU, between NRIAG (Egypt) and CRAAG (Algeria), covering geophysics and astronomy



Group Photo after the signature of the CRAAG-NRIAG MoU during the Arab Conference on Astronomy and Geophysics 5th Assembly held the 17-20 October 2016 at Helwan-Cairo, Egypt

**Medhat****CRAAG**

Medhat El-Rayess (NRIAG, Helwan, Egypt) paid a visit to Fethi Semmane (CRAAG, Algiers, Algeria) in October 2017 to work on the analysis of strong motion data of the Nile Delta

Towards junior scientists and PhD students

In addition to their participation to regional scientific events, several NAGET young scientists attended:

1. A Multidisciplinary course on seismology, space geodesy and crustal deformation, partially funded by TWAS, at ICTP (Trieste) in **2012**
2. A training course on GIS for seismic risk mitigation, partially funded by Periperi U, at USTHB (Algiers) in **2013**
3. School on Earthquake and Tsunami Hazard and Risk at USTHB (Algiers) in **2013** in the framework of Algeria-Italy bilateral project.

4. International school on advanced modeling of seismic hazard in Africa , Cairo, 25-29 October, **2014**.
5. Visit of three young scientists (PhD students) to the Solid-Earth-Geophysics group (ESP/ICTP) in the framework of the Regione-autonomia-Friuli-Venezia-Giulia/ICTP/Algeria/NAGET Project, October-December **2014**
6. A training course on GIS for disasters risk management, organized by Periperi U, NAGET and AHNet at USTHB (Algiers) in March **2015**



Young researchers at ICTP for intensive earthquake and tsunami hazards training (Trieste, **2012**)



Young Scientists, master and PhD students at USTHB for the school on earthquake and tsunami hazard and risk (Algiers, **2013**)



Young Scientists participating to the field investigation of tsunami deposits at Marsa Matrouh 2014



Towards young scientists: contribution to building capacity

Young Scientists, master and PhD students at NRIAG for the school on advanced modeling of seismic hazard in Africa (Cairo, **2014**)



The start of the school with the lecturers

The end of the school: Young scientists receiving the attestation of participation from the NRIAG President, Prof. H. Odah





In the framework of the Regione-autonomia-Friuli-Venezia-Giulia/ICTP/Algeria/NAGET Project, Radia, Sawsen and Manel visited the Solid-Earth-Geophysics group (ESP/ICTP) in **2014**



The group paid a visit to Venzone (Friuli region), severely affected by a devastating earthquake (M 6.5) on 6th May 1976



The group received from the authorities and experts of Venzone a detailed account and the lessons learned from that earthquake and was very impressed by the management of the disaster, and above all the reconstruction carried out after the earthquake (see http://tieremotus.it/en/percorso_07.html)

2015

Towards young scientists: contribution to building capacity

Intensive course on
the use of GIS in
disasters risk
management, Algiers,
Algeria



2015

Towards young scientists: contribution to building capacity



Visit of Sahar Kharrat to CRAAG (Algiers, Algeria) in the framework of her PhD thesis on historical seismicity of Tunisia with Prof. Samir Bouaziz and Assia Harbi



2015

Towards young scientists: contribution to building capacity

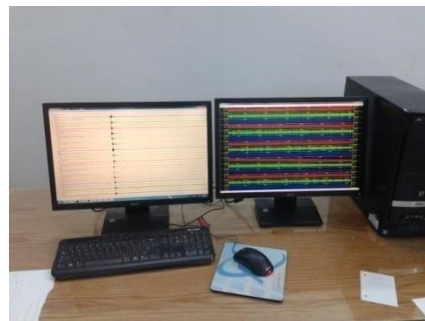


Visit of Seif-Eddine Cherif to the Vibration Table of CGS (Algiers, Algeria) in the framework of his PhD thesis on seismic risk assessment in the northern cities of Morocco with Prof. Mimoun Chourak (Morocco) and Prof. Mohamed Abed (Algeria)

...and to the Blida University



Towards young scientists: contribution to building capacity



Young Scientists, master and PhD students at NRIAG for the school on seismic hazard and induced seismicity in Africa (Asswan, **2016**)



In the framework of the FVG-ICTP-NAGET project **Billel Mellouk** and **Ahmed Saadi**, master students, paid a visit to the Solid Earth Geophysics Team (ICTP, Trieste, Italy) in March **2017** to receive a training on ambient noise tomography and inversion. They dealt with a master subject: Ambient Seismic noise Tomography: Application to the Channel of Sicily that they defended in May 2017 at Khemis Miliana University



In the framework of the project **“Crustal Composition and Moho Characteristics Beneath Northern Africa Region”**, Ahmad Hosny (NRIAG, Egypt) provided training course on the receiver functions and joint inversion technique for young scientists at **Institut Scientifique, Université Mohamed V, Rabat, Morocco** the **27 -30 April 2018**

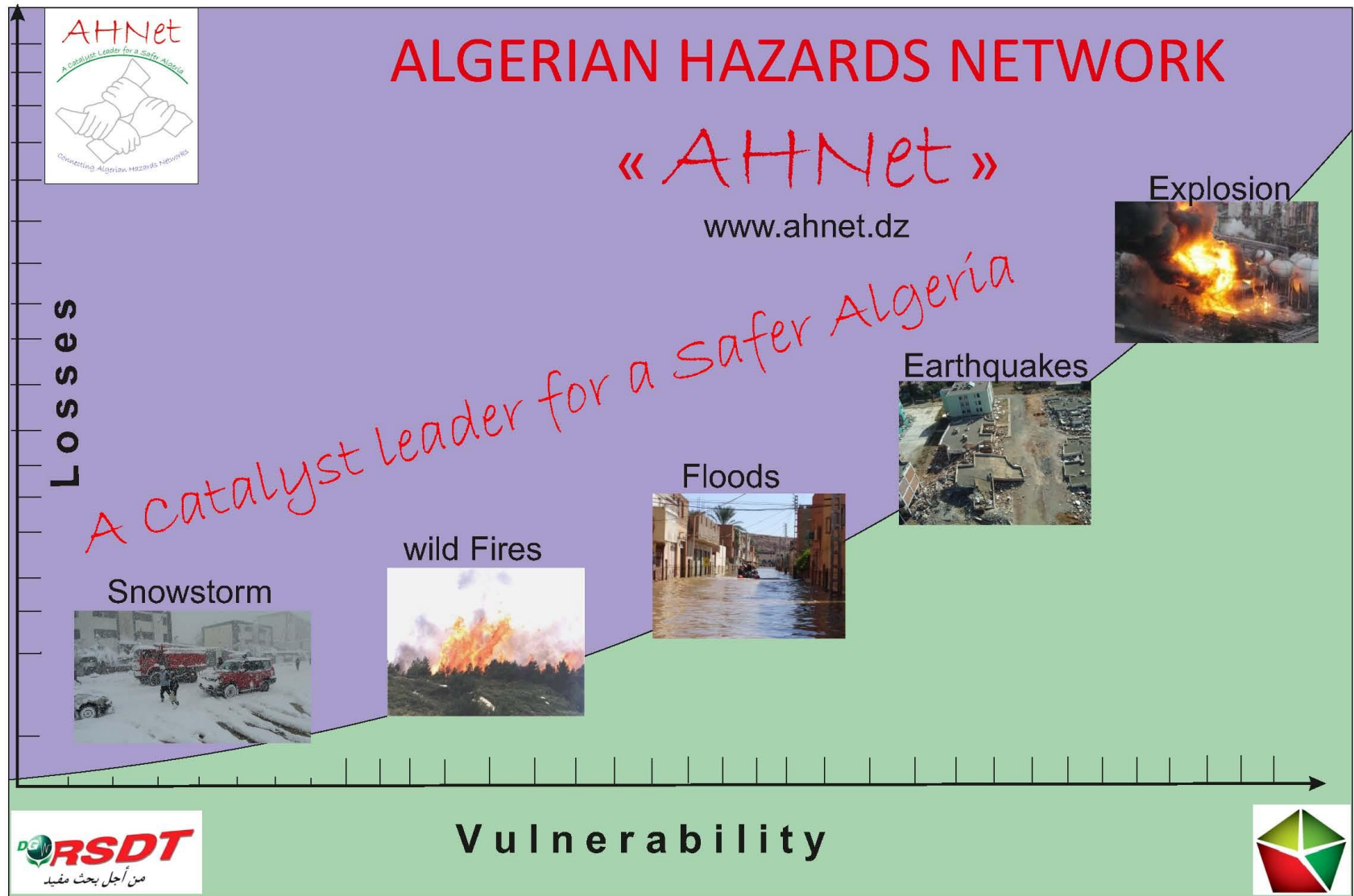


Ahmad Hosny at Institut Scientifique, Université Mohamed V, Rabat, Morocco the 27 -30 April 2018 during the training course on the receiver functions and joint inversion

Connecting Hazard Networks and Geosciences Associations

After NASG/NAGET, Periperi U (<http://www.riskreductionafrica.org/>), a new network, founded by NAGET members, is born:

The Algerian Hazards Network, which started its activities in **2014**, is an important partner to NAGET in Algeria.



About AHNet

AHNet is a national leading-network built around Algerian scientists involved in hazards studies for a sustainable and safer environment.

Aims and Objectives

Being a backbone around which research teams will graft.

Creating a networking and serving as a bridge between scientists and decision makers.

Reducing cost by sharing the resources through the network.

Disseminating deliverables issued from research.

Developing early warning systems.

Networking

- Data sharing and exchange
- Connecting multidisciplinary teams and experts
- Making useful the research deliverables

Fields of Interest

Natural Hazards

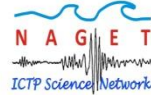
- Geological hazards
- Flood, storms and tsunamis, ...
- Meteorological hazards and climate change
- Desertification and wild fires
- Drought
- Sanitary and biological hazards

Technological Hazards

- BLEVE, BOIL-OVER, Explosion
- Dams Failure, Chemical Hazards

Focal Point of the Network

Agence Thématique de Recherche en Sciences et Technologie
ATRST, Avenue Pasteur, Belfort,
BP62 Hacene Badi, el Harrach, Alger
Tel. 021 52 68 01
Fax. 021 52 62 40
e-mail. Contact@ahnet.dz



2015

LABORATOIRE BÂTI DANS L'ENVIRONNEMENT
UNIVERSITE DES SCIENCES ET DE LA TECHNOLOGIE HOUARI BOUMEDIENE – USTHB
FACULTE DE GENIE CIVIL
B. P. : 32 El-Alia, 16111 Bab-Ezzouar, Alger- ALGERIE
Mobile: +213 771 842 428 Fax : +213 21 247 914
Directeur de Recherche : Prof. Djillali BENOUAR, E-mail : dbenouar@usthb.dz

Alger, 08 Février 2015

ANNONCE

**ORGANISATION D'UN COURS ACCELERE
SUR L'UTILISATION DES SYSTEMES D'INFORMATION
GEOGRAPHIQUES (SIG) POUR LA GESTION DES RISQUES
DE CATASTROPHES
01 – 05 Mars 2015**

Le laboratoire bâti dans l'environnement (LBE) de l'USTHB, en collaboration avec la Faculté de Génie Civil, Algerian Hazards Network (AHNet) et North African Group for Earthquakes & Tsunami (NAGET), a le plaisir d'annoncer l'organisation d'un cours accéléré sur l'utilisation des systèmes d'information géographiques (SIG) pour la gestion des risques de catastrophes dans le cadre du projet PERIPERI U au sein de la Faculté de Génie Civil (salle 60) durant la période du 01 au 05 Mars 2015.

Programme de formation SIG

Introduction

La maîtrise des techniques modernes pour le traitement de l'information géographique constitue une préoccupation majeure pour les chercheurs, ingénieurs, architectes, géographes,...etc. Les logiciels SIG permettent une avancée appréciable pour la maîtrise de la problématique spatiale (cadastre, urbanisme, environnement, risques majeurs, etc.).

Durée

Pour une bonne maîtrise des concepts fondamentaux et des fonctionnalités d'un logiciel SIG, la durée de formation est de 05 jours

Three science networks and the University organized an intensive course on the use of GIS in disasters risk management at Algiers, Algeria

2016



<http://arabgu.com/files/index.php>

NAGET warmly welcomes the creation of the Arabian Geosciences Union and congratulates its founding team for this good initiative

Senior Advisory Member

Prof. Hatem Odah (NAGET member)



The PRESIDENT 2016
Prof. Zakaria Hamimi
(joined NAGET in 2016)

The Executive Vice-President

Prof. Basem Zoheir
(joined NAGET in 2016)



Prof. Assia Harbi



Prof. Yelles Abdelkrim

Regional Vice-Presidents (NAGET members)

Prof. Abderrahmane Bendaoud



African Seismological Commission



Several NAGET members attended the 2nd Assembly of the AFSC held the 23-27 April 2018 Al-Hoceima, Morocco



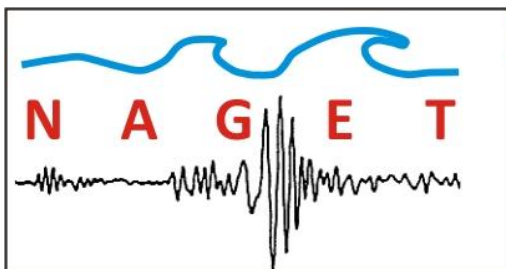
Feedback on AfSC activities

General Assemblies are every two years, so the executive committee takes opportunities of other meetings/conferences to meet and discuss issues:

- IASPEI in Kobe 2017
- AfricaArray 2017

Also, NAGET has indicated an interest in becoming an affiliate member which is a testimony of the growth of the AfSC.

All minutes (including those from today) are uploaded onto the AfSC website www.afsc-web.org



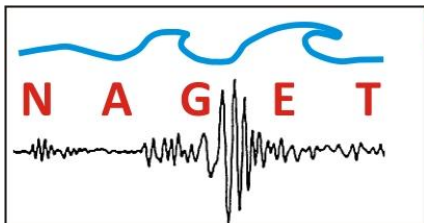
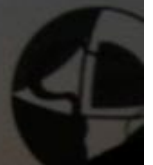
North African Group for Earthquake and Tsunami studies
ICTP Science Network

An AFSC Affiliate member since April 2018



Voting on the Bylaws

Morocco
Mozambique
Botswana
Cameroon
Nigeria
Egypt
Ghana
Cabo Verde
Malawi
Senegal
Zimbabwe
South Africa
Algeria
NAGET



North African Group for Earthquake and Tsunami studies

ICTP Science Network

A voting member since April 2018



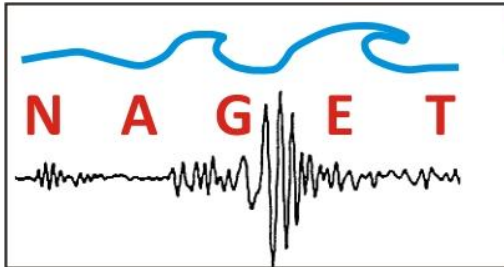
African Seismological Commission



Mustapha Meghraoui (Algeria): President



Mohamed El-Gabry (Egypt): Member



North **A**frican **G**roup for **E**arthquake and **T**sunami studies
ICTP Science Network

**Tow NAGET members were elected in the
Executive Committee of the AFSC in April 2018**

Publications

- The list of the publications of NAGET members is yearly updated at:
<http://naget.ictp.it/PUBLICATIONS/publications.html>
- A special issue of Journal of Seismology with three NAGET members as Guest Editors: *Mustapha Meghraoui, Assia Harbi and Hesham Hussein*, and entitled **Seismotectonics and Seismic Hazard in North Africa**, is available since March 2014. Go to volume 18, issue 2, April 2014 at <http://link.springer.com/journal/10950>



Publications

Several NAGET members, from a same NAF country, collaborated on many papers. For now five scientific publications involve NAGET members from different NAF countries:

1. Mourabit et al. 2014 (<https://link.springer.com/article/10.1007/s10950-013-9375-2>)
2. Athmania and Hammadi 2014 (<http://www.mdpi.com/2072-4292/6/5/4600>)
3. Cherif et al. 2016 (<https://link.springer.com/article/10.1007/s11069-016-2566-8>)
4. Meghraoui et al. 2016 (<http://www.episodes.org/view/1337>)
5. Salama et al. 2018 (<https://doi.org/10.5194/nhess-18-2203-2018>)



Patents



Yacine Hemdane



RTGHF

Yacine Hemdane (USTHB, Algeria) developed in **2017** a new generation of tide gauge based on a direct reading of high frequency (RTGHF) sea-level oscillations (including tsunami waves) and characterized by its very low cost, high precision (millimetric) and high frequency sampling rate (more than 2 Hz). RTGHF (patented in Algeria) is adapted to coastal areas (presence of waves).



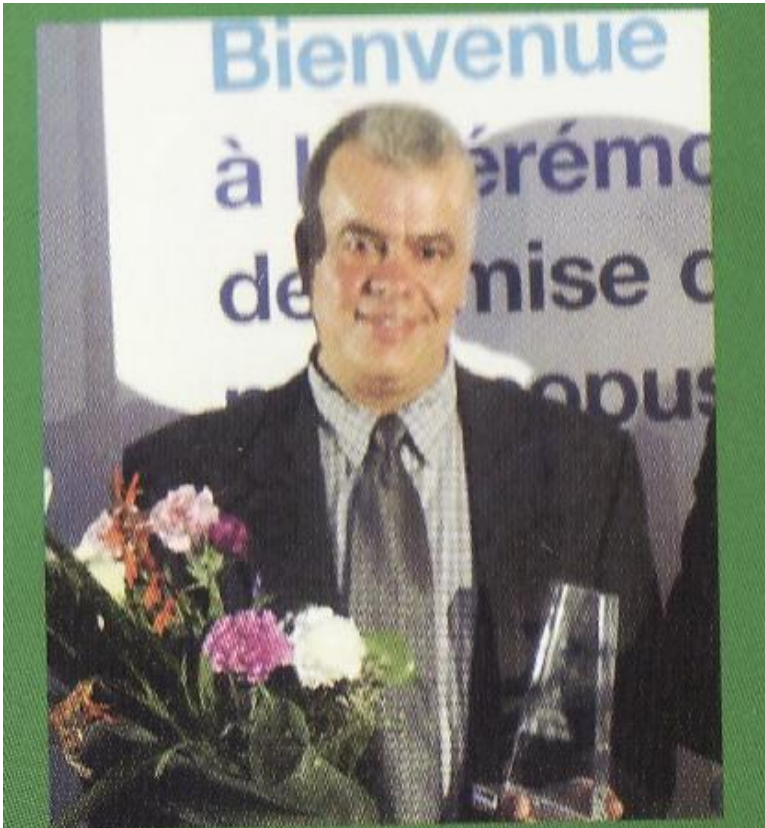
Awards and Honours



Djillali Benouar (USTHB, Algeria) received on **27 July 2005** an **UNESCO-GADR-AWARD** recognition for distinguished professional leadership and personal commitment to ongoing programs on disaster reduction, and on **5 January 2011** a **Thomson Reuters Scientific Award** for continuous scientific research contribution



Awards and Honours



Prof. Maouche Said
CRAAG
(Sciences de la terre)

Said Maouche (CRAAG, Algeria) received on **18 March 2010** a **Scopus Award** for the best H-index in Earth Sciences in Algeria