ANSOLE e-Magazine 3/2016



Dear ANSOLERs, Friends and Network Partners,

We are now embracing 2017 with high expectations for our network after going through a fruitful 2016. The major highlight for ANSOLE in 2016 was the celebration of its 5th Anniversary in the form of a conference in Cairo, Egypt. Also, 2016 was marked by the admission of 122 new personal members, 2 institutional members, the Ecole Supérieure des Métiers des Energies Renouvelables (www.esmer-benin.org) and the Institute of Polymeric Materials and Testing (www.jku.at/ipmt), and 1 company member, Acwa Power (www.acwapower.com). You will learn more about this company in this issue. ANSOLE is now present in 43 African countries and 30 non-African countries.

Besides, ANSOLE co-organized 4 events in 2016, officially launched the BALEWARE platform (www.baleware.org), participated and was presented at 17 events in Portugal, Egypt, Algeria, South Africa, Morocco, Spain, Germany, Senegal, Cameroon, Israel and Tanzania. It signed a MoU with the Dar Es Salaam Institute of Technolgy (www.dit.ac.tz) to carry out joint events.

Moreover, ANSOLE received a grant from VolkswagenStiftung (www.volkswagenstiftung.de) to co-organise 2 schools on "Sustainable Energetics for Africa (SE4Africa)" (www.ansole.org/se4aschools) in Burkina Faso and Cameroon. And its coordinator was awarded the First Distinguished Brian O´Connell Visiting Fellowship of the University of the Western Cape.

The principle of 'paying/sharing/giving/ passing it forward' (see ANSOLE News 2/2014 and its supplement) is the fundament on which ANSOLE operates. This is in accordance with the biblical word in Genesis 12:2, accompanying ANSOLE since its creation: "I shall bless you…, and you shall be a blessing," which, in turn, is in line with the Second Law of Thermodynamics…

I hope that this principle will govern our actions in 2017. Start by "sharing" through submission of an article to editorial@ansole.org and be a 'Sea of Galilee' to others.

Stay blessed!



Daniel A. M. Egbe
daniel.egbe@ansole.org.

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Endorsed Events:

- **27 February - 03 March 2017, 2iE Ouagadougou, Burkina Faso:** School 1 on "Sustainable Energetics for Africa (SE4A)". Visit ansole.org/se4aschools.
- **28- 29 March 2017, Sandton Convention Centre, Johannesburg, South Africa:** Power & Electricity World Africa. Visit terrapinn.com/powerafrica.
- **4-5 April 2017, La Palm Royal Beach Hotel, Accra, Ghana:** Clean Energy Summit: Africa. Visit http://africa.solarenergyevents.com.
- **25-26 April 2017, Lagos, Nigeria:** Solar Future Nigeria. Visit http://nigeria.thesolarfuture.com. 10% discount for ANSOLE members!
- **5-8 May 2017, Hammamet, Tunisia:** ANSOLE DAYS 2017. Visit www.ansole.com.
- **8-11 May 2017, Johannesburg, South Africa:** Mastering Renewables & Alternative Energies. Visit www.infocusinternational.com.
- **1-2 July 2017, USTHB Algiers, Algeria:** ANSOLE International Interdisciplinary Conference on Materials for Energy. Visit www.ansole.org/aiicme.
- **28 July - 4 August 2017, PKFokam Institute of Excellence, Yaounde, Cameroon:** Summer School 2 on "Sustainable Energetics for Africa". Visit ansole.org/se4aschools.
- **25-27 September 2017, Dubai World Trade Centre, United Arab Emirates:** Intersolar Middle East. Visit www.enfsolar.com.













Please, check the ANSOLE events calendar on www.ansole .org!!

About ANSOLE:

The network promotes research, education and training in the field of solar energy among Africans as well as non-Africans with a special focus on - and relationships with - Africa.
As outlined in its by-laws, ANSOLE supports non-profit activities in the field of development aid and cultural exchange with the aim of strengthening the dialogue between the North and African countries (north-south) and among African countries (south-south) on renewable energy.
It endorses the use of solar energy to the benefit of the social and economic development of Africa as well as environmental protection through:

- Education and training of African scientists, experts and students
- Exchange of students and visiting scientists
- Workshops, conferences and meetings in Africa
- Organising and implementing projects and programmes on renewable energy
- Promoting capacity building in the use of renewable energy in Africa for all

ANSOLE members and those acting in the name of ANSOLE accept and act in accordance with the association's by-laws.
Mention of conferences, companies, or products in this document does not automatically constitute an endorsement.

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Editorial board of ANSOLE e-Magazine 3: Manuela Attouh and Daniel Ayuk Mbi Egbe

Reporting

on…

ANSOLE Activities in the World from October to December 2016

By **Daniel Egbe**

October 2016

In the last issue, I reported on my move from the Linz Institute for Organic Solar Cells (LIOS) to the Institute of Polymeric Materials and Testing (IPMT) of the Johannes Kepler University of Linz, Austria. IPMT is an institutional member of ANSOLE, it harbors the coordination of ANSOLE´s activities.

The 12th of October was the PhD defense day of Joël Hervé NKUISSI TCHOGNIA. As a PhD student in Physics under the supervision of Prof. Jean-Marie Ndjaka at the Faculty of Sciences of the University of Yaoundé I, Mr. Tchognia was the second Cameroonian to obtain the ICTP-ANSOLE INEX (Intra-African Exchange) fellowship to perform the experimental part of his PhD thesis at the University of Mohammedia in Morocco under the supervision of Prof. Hartiti. The title of his thesis is *Optimisation du processus de dépôt des couches minces de CU2ZnSnS4 (CZTS) en utilisant la méthodologie Taguchi des plans d'expérience pour applications photovoltaïques.* This scientific work has led to 10 peer-reviewed publications since 2013. We congratulate Dr. Tchognia for achieving this goal in his life!



ICTP-ANSOLE INEX Fellow Dr. Joël Hervé NKUISSI TCHOGNIA: from experimental work at the University of Mohammedia in Morocco to PhD defense at the University of Yaounde I in Cameroon.

On 13 October, I visited the German Federal Ministry of International Cooperation (BMZ) in Bonn to discuss venues of cooperation in the framework of the Pan-African University Institute of Water and Energy Sciences (including Climate Change) (PAUWES). I was informed about the training & education initiative of BMZ on renewable energies in developing countries. India was marked as the starting point.

ACWA Power, (www.acwapower.com) a renewable energy company having its headquarters in Riyadh, Saudi Arabia, joined ANSOLE on the 19th of October. The company has offered to sponsor one student.

November 2016

ANSOLE e.V. held its general assembly on the 5th of November in Jena, Germany with a strong participation of African students attending the University of Jena. A new board of directors was elected for the next 3 years consisting of:

- Prof. Daniel A. M. Egbe – President;
- Mrs. Marlyse Strosche – 1st Vice-President;
- Mr. Christian Beese – 2nd Vice-President;
- Dr. med. Anne Egbe – Treasurer;

- Ms. Agatha Christy Sonma Okoro – Secretary;
- Ms. Leonie Schoelen and
- Mr Niklas Hayek.



Participants at the General Assembly Meeting of ANSOLE e.V. in Jena on the 5th of November 2016.

After 2011 and 2012, ANSOLE organised its 3rd Meeting in Cameroon (ANSOLECAF 2016) from the 18th to the 19th of November at the Higher Technical Teachers Training College (HTTTC) in Bambili, Bamenda in cooperation with the University of Bamenda (UBa). This was possible through its dynamic National Representative (NR) Dr. Claude Vidal Aloyem Kaze, who, in this issue, reports on the

activities of ANSOLE in Cameroon since his appointment as NR in late 2015. Ms. Manuela Attouh, editorial board member of our e-Magazine gives a detailed account of the event in Bamenda.



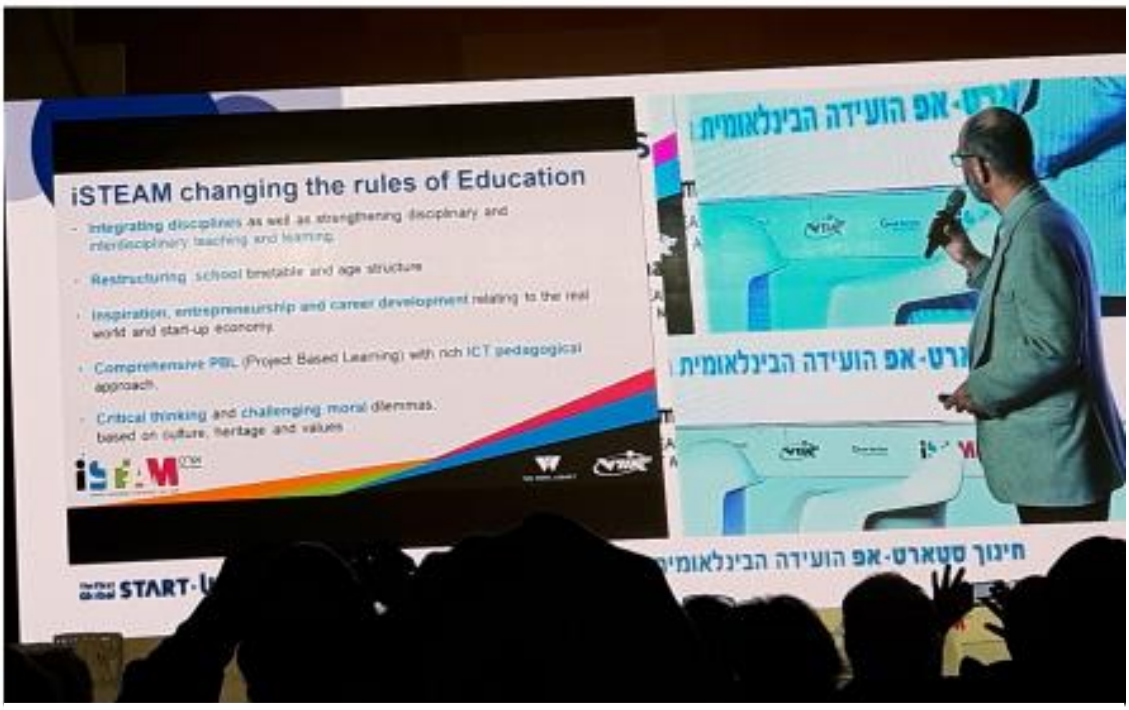
Opening ceremony of ANSOLECAF 2016 in the presence of UBa Deputy Vice-Chancellor in charge of Research, Cooperation and Relations with the Business World, Prof Sarah Anyang Agbor, Sub-Divisional Officer of Tubah, Mr Alim Garga and ANSOLE Regional Representative in Central Africa, Prof. Cesar Kapseu.

We are grateful to HTTTC of UBa, the association EBZ in Dresden, Germany and the ICTP for their financial support of the event.





Upon invitation of ORT, Israel´s leading educational network, I attended the First Global Start-Up Education Conference on Innovation, Science, Technology, Engineering, Arts and Mathematics (iSTEAM) from the 28th to the 30th of November in Jerusalem. A gala opening reception was offered to participants on the 28th at the Jerusalem Municipality Council Hall of Jerusalem during which the Mayor of the City, Nir Barkat, delivered his welcome address. The conference itself, held on the 29th, brought together leaders from education systems, academia, governments, NGOs and businesses to discuss how to address the move from STEM to iSTEAM. The conference hosted expert speakers and policy makers from Israel and the world in iSTEAM.



Dr. Yoel Rothschild of ORT presenting the iSTEAM concept.

The speakers presented the latest methodologies and breakthroughs in preparing today´s youth to integrate into the ever-changing global economy and society. Keynote speakers and panelists examined the related issues by thinking 'outside the box' specifically in relation to secondary education systems. A multi- and interdisciplinary educational approach was agreed on as the way to proceed. 4 secondary schools within the ORT network implementing the iSTEAM approach were

visited on the 30th of November, the last one being a High School at Achva Gilboa, an arabic neighborhood in the North of Israel.



Some iSTEAM conference participants with few students of ORT Achva Gilboa High School, in an arabic neighborhood in the North of Israel.

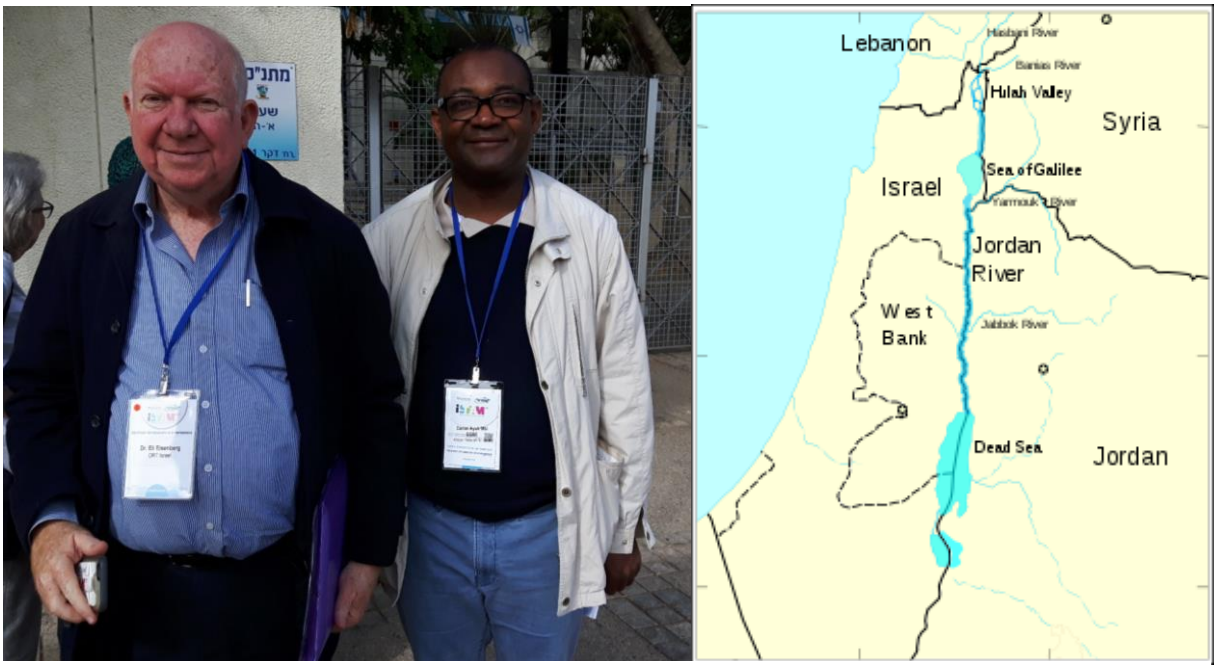
At the end of the last school visit, Dr. Eli Eisenberg, Deputy Director of ORT and organiser of the iSTEAM conference, made the following statement as food for thought:

Israel has two seas, the Sea of Galilee in the North and the Dead Sea in the South.

The Sea of Galilee receives its water from various sources and passes it on through the Jordan River to the Dead Sea. The Dead Sea on the other hand only receives water but does not pass it on.

The Sea of Galilee is full of life, because it receives and gives (passes on!), whereas, the Dead Sea is dead and is at the lowest point on Earth, because it only receives but doesn´t give (doesn´t pass on!)

A person who receives and gives is ‘alive‘ (full of life) and is a blessing to others (Second Law mindset, Genesis 12:2). He/she who receives only is of no use to others. Such an individual is trapped in the First Law mindset.



Dr. Eli Eisenberg of ORT, Israel: “The Sea of Galilee receives and gives water and is full of life (D. Egbe: Second Law Mindset)! The Dead Sea only receives and doesn´t give water and is dead (D. Egbe: First Law Mindset)!“

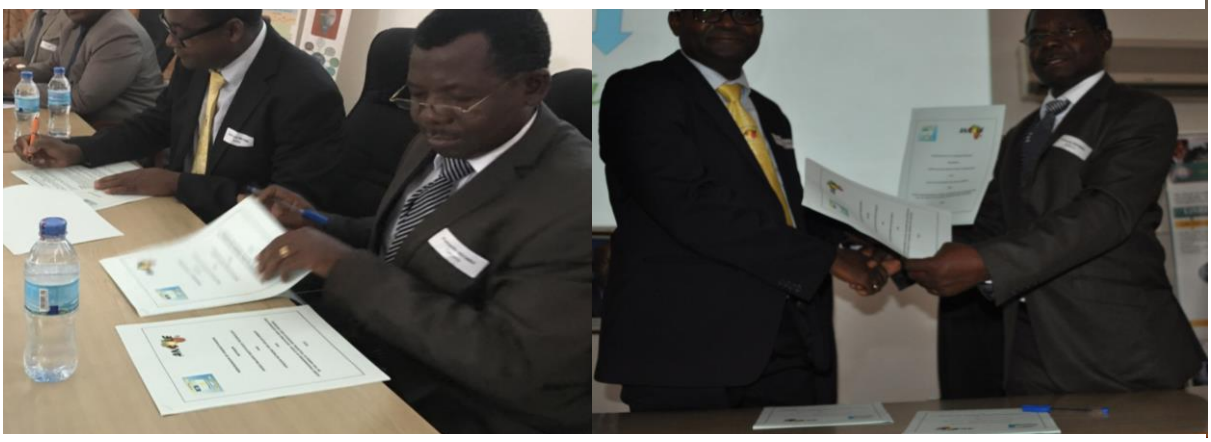
December 2016

The main ANSOLE activity in December was the launching event of BALEWARE (Bridging Africa, Latin America and Europe in Water and Renewable Energies

Applications) (www.baleware.org) from the 11th to the 13th of December 2016 at the Nelson Mandela African Institution of Science and Technology (NM-AIST) in Arusha, Tanzania. The event witnessed the attendance of 50 participants from Africa, Europe and Latin America. Sponsorship was obtained from the institutions whose logos are displayed above. The opening keynote lecture was given by Prof. Reinhold Lang, director of IPMT of JKU Linz, Austria. The book of programme and abstracts can be downloaded at ansole.org/publications. ANSOLE used the event to sign a MoU with the Dar es Salaam Institute of Technology, Dar es Salaam, Tanzania. Many participants used the opportunity to discover touristic sites in the region of Arusha and to visit the Arusha College of Technology.



Participants at the BALEWARE 2016 Launching Conference, 11-13.12.2016, NM-AIST, Arusha, Tanzania.



Signing of MoU between ANSOLE and Dar Es Salaam Institute of Technology (DIT) during BALEWARE 2016 Opening Ceremony, 12.12.2016, NM-AIST, Arusha, Tanzania.



Professor Reinhold Lang, Johannes Kepler University Linz, Austria (left) and Prof Noela Invernizzi, Federal University of Parana, Curitiba, Brazil (right), lecturing at the event.

Apart from the lectures, a major highlight of the event was the Science and Entrepreneurship Slam, which was sponsored by Africa-EU Renewable Energy Cooperation Programme (RECP) and the Finnish University Partnership for International Development (UNIPID). The winner of the contest was Mr. Ahmed Abbas of Egypt who presented on **Mobile Solar Pumping System**.

Another highlight was the conference dinner during which the ANSOLE coordinator offered „thank you“ gifts to conferees including Dr. Ineke Malsch, who was the real main organiser of the event, Ms. Eva Kagiri, Mr. Niklas Hayek, Prof. Reinhold Lang and Prof. Noela Invernizzi. Apart from the meals and refreshments, participants enjoyed the performance of a traditional dance group from Arusha.



The 5 contestants of the Science and Entrepreneurship Slam together with the Organisers of the competition Ms Eva Kagiri (UNIPID) and Mr Niklas Hayek (RECP).



Prof. Noela Invernizzi (Brazil), Mr. Marcus Gall (Austria) and Prof. Damas Alfred Mashauri (Namibia) receiving their certificate of participation.

The event was closed with the award of certificates of participation and the promise to meet again in 2018 in Latin America.

From the 23rd of December 2016 to the 1st of January 2017, I spent the end of year festivities with my family in Cameroon. And at the invitation of Prof. Dr. Emmanuel Tanyi, ANSOLE focal point at the University of Buea (UB) and Dean of UB's Faculty of Engineering and Technology, I could visit the renewable energy teaching laboratory of this institution (www.ubuea.cm). In 2016, the latter was donated renewable energy laboratory equipment worth 50,000 Euros by a Germany–based Cameroonian diaspora association called INSEARCH e.V..



Some laboratory teaching equipment offered to the Faculty of Engineering and Technology of the University of Buea (UB) by Germany–based INSEARCH e.V.

This state-of-the-art teaching equipment has been put at the disposal of ANSOLE to be used for the practical session of the SE4A-School 2, which will be held in Cameroon from the 31st of July to the 4th of August 2017.

ANSOLE Activities in Cameroon in 2016

Introduction

The following report provides a summary of the activities conducted by the African Network for Solar Energy (ANSOLE) in Cameroon during the year 2016, in accordance with the duties assigned to National Representatives of the Network in each country.

1- Admission of New Members

A total of 18 (eighteen) students and lecturers from Cameroon's higher education institutions joined ANSOLE as active members in 2016 including Professors, Doctors, Master's Degree Students, DIPET I (Teacher Diploma of Technical Education First Degree) and DIPET II (Diploma of Professor of Technical College Second Degree) students.

2- Appointment of ANSOLE Focal Points

Five Professors have been appointed as ANSOLE focal points in four Cameroon's state universities.

Name	Focal Points	Emails
Prof. Emmanuel TANYI	University of Buea	emmantanyi@yahoo.com
Prof. Martin KAMTA	University of Ngaoundere	martin_kamta@yahoo.fr
Prof. René TCHINDA	University of Dschang	ttchinda@yahoo.fr
Prof. Noel NDJONGYANG	University of Maroua	dnoel102000@yahoo.fr
Prof. George ELAMBO NKENG	National Advanced School of Public Works of Yaounde	gnkeng@yahoo.com

NB: More focal points will be designated over time for other institutions.

3- Organization of ANSOLE National Meetings

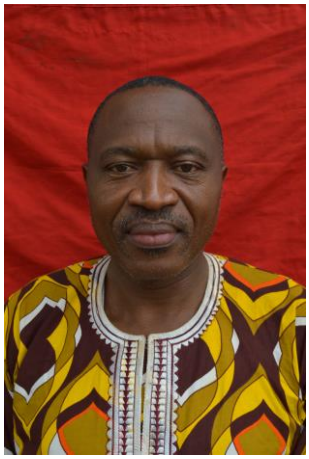
One ANSOLE national conference was organized at the University of Bamenda, more precisely at the Higher Technical Teacher Training College (HTTTC) located in Bambili. Indeed, the Third ANSOLE´s event in Cameroon, Conference for Young Scientists, was held on 18 and 19 November, 2016 on the theme of **Renewable Energy for All in Cameroon**. Over a hundred researchers from Cameroon and abroad attended this conference including Prof. Daniel Egbe, its International Organizer and Coordinator of ANSOLE. According to participants, the event was very well organized and successful.

4- Renewable Energy Landscape in Cameroon

The move to know who is doing what, when and where in renewable energy research and industry in Cameroon is inexorably underway. The first report on this endeavour will be submitted at the end of this year.

Conclusion

We will push forward with efforts to increase ANSOLE membership and focal points. The next national conference is to be jointly organized by the National Advanced School of Public Works in Yaounde and the University of Buea.



Dr. Aloyem Kaze is a Cameroonian born in 1972. He is married and father of five children. He received a Ph.D from the University of Dschang, Cameroon in 2012. He is the author of six publications in the fields of thermodynamics and exergy. He is interested in renewable energy, especially in the conversion of solar energy. He lectures at Bambili Higher Technical Teacher Training College, University of Bamenda, Cameroon, and is the National Representative of ANSOLE in Cameroon. Contact: *kazealoyem@yahoo.fr*.



Massive turnout of students for ANSOLECAF 2016 event in Bamenda.

Third ANSOLE Meeting in Cameroon: Conference for Young Scientists

On 18 and 19 November, 2016, the African Network for Solar Energy (ANSOLE) together with the University of Bamenda in Cameroon organized the Third ANSOLE Meeting in Cameroon: Conference for Young Scientists (ANSOLECAF 2016) under the theme **Renewable Energy for All in Cameroon**. The event provided a multistakeholder forum for the exchange of views and ideas on renewable energy projects undertaken by African students and lecturers.

By **Manuela Attouh**

"It has been exactly one year that the Head of State, His Excellency President Paul Biya, committed Cameroon to reduce greenhouse gas emissions by 32% by 2035. This commitment implies that efforts for increased assets to energy for socio-economic development will involve the government, independent energy providers, institutions, enterprises, communities and individuals." This is from Prof. Sarah Anyang Agbor, the Deputy Vice-Chancellor of the University of

Bamenda in charge of Research, Cooperation and Relations with the Business World, in the regional capital of the North West Region of Cameroon. She was speaking on behalf of Prof. Theresia Nkuo-Akenji, the Vice-Chancellor of this University, at the opening ceremony of the Third ANSOLE Meeting in Cameroon: Conference for Young Scientists (ANSOLECAF 2016) held on the campus of her institution. An institution where His Excellency Prof. Jacques Fame Ndongo, Chancellor of Academic Orders, Minister of Higher Education, has just approved for the launch of programmes at engineering technology for the 2016-2017 academic year.



Energy-efficient solar tracker robot.

The international conference, whose theme was **Renewable Energy for All in Cameroon**, attracted about a hundred participants from Cameroon, Germany, Spain and Chad in this town known for its cool climate and scenic hilly location. For two days, 18 and 19 November, 2016, from 8 am to 6 pm, lecturers and students presented the results of ongoing and completed research works to an audience assembled in amphi 340 of Bambili Higher Technical Teacher Training College (HTTTC). A packed audience graced with the presence of His Royal Highness Fon Tamukum II of Bambili and the Sub-Divisional Officer of Tubah Alim Garga.

No less than fifty presentations were delivered in three technical sessions and one poster session. The first technical session, whose topic was **Photovoltaic Materials, Devices and Applications**, involved three sub-sessions of three-member panel each namely a chair, an examiner and a rapporteur. So, in this order, sub-session 1 panel was composed of Prof. Eustace Nfah Mbaka, from the University of Bamenda, Prof. Samuel Laminsi from the University of Yaounde I, Cameroon, and Dr.

Frédéric Lontsi from the University Institute of Technology of Douala, Cameroon. Sub-session 2 panel consisted of Prof. René Tchinda from the University of Dschang, Cameroon, Prof. Germaine Djuidje Kenmoe from the University of Yaounde I, and Dr. Bonaventure Nana from HTTTC Bambili. And sub-session 3 panel was made up of Prof. Evaristus Tsi Angwafo from HTTTC Bambili, Dr. Gaetan Kuiate Fautso from HTTTC Bambili and Dr. David Afungchui from the University of Bamenda.

Renewable Energy was the theme of the second technical session broken into two sub-sessions. The jury of the first sub-session comprised Prof. César Kapseu from the University of Ngaoundere, Cameroon, Prof. Martin Kamta from the University of Ngaoundere, and Dr. Serge Fewo from the University of Yaounde I, while the jury of the second sub-session consisted of Prof. Godpromesse Kenne from the University Institute of Technology Fotso Victor, Bandjoun, Cameroon, Prof. Gratien Atindogbe from the University of Buea, Cameroon and Dr. Paigui Ngouateu from HTTTC Kumba. The members of the third technical session panels on the theme of **Energy Conversion and Energy Storage, Perspectives** included Prof. Kamta Martin, Prof. Daniel Tchiotsop from the University of Dschang and Dr. Daniel Lissouck from the University of Douala for sub-session 1, and Prof. Jean Roger Bogning from HTTTC Bambili, Prof. Divine Nde Bup from the University of Bamenda and Dr. Emmanuel Foadieng from the University of Buea for sub-session 2.

If the audience was enthusiastic, to say the least, about all communications, two particularly grabbed its attention. One was the lecture given by Prof. Emmanuel Tanyi Beti from the University of Buea on *Renewable Energy Options for Rural Electrification*. Mindful of the fact that renewable energy can bring salvation to rural masses, 90% of which still live without electricity, he designed and installed a 5 KW solar system in Cameroon in October 2016. His project, which was commended for finding an alternative to generators and for providing a cost, CFAF 15,000,000, that can serve as a reference for future such endeavours, was also the only one to receive a comment from Mr Dieter Piskol from Sipua Consulting



From left to right Dieter Piskol, Alexander Sipua Ngnoubamdjum, Alim Garga, Prof. Sarah Anyang Agbor, Prof. Daniel Egbe, Prof. César Kapseu and Dr. Claude Aloyem Kaze.

and EBZ, Germany. Many hoped that the government would step in for more systems to be implemented at the local level within the framework of decentralization.

Of particular interest too was the solar tracker robot exhibited by Hyacinthe Tchakounte from the University of Ngaoundere. With a little over CFAF 10,000, just enough to purchase an Arduino ATMEGA-328 microcontroller, light-dependent resistors, resistors, potentiometers, a SG90 9G Micro servo motor, a piece of cardboard, a candy box and a CD case, he and his colleagues could optimize the dynamic behavior of an electromechanical solar tracking system to use step tracking only when necessary. Their ingenuity has undoubtedly won them the best prototype prize. In addition to being easy and cheap to realize, the prototype is energy efficient.

Other youths have excelled through the projects they submitted at the poster session. Out of the nine projects vying for seed money, four produced happy winners in the order *Study and realization of a mini device for biogas production from organic waste: the case of pig waste* by Joseph Pegba from the University of Bamenda, *Etude et optimisation d'un système solaire photovoltaique installé en site isolé au*

Cameroun by Mbeutoum Mylène from the University of Yaounde I, *Solar energy as a decisive factor in boosting telemedicine in underdeveloped countries* by Nicole Kengnou Telem from the University of Dschang, and *Analysis and realization of a solar street light with USB port for phone charging* by Wouafo Naoussi and Nyonguo Yusimbom from the University of Bamenda.

Taking the floor at the end of the awards ceremony, Prof. César Kapseu, the Chairperson of the selection committee, urged young engineers to conceive projects and build startups that might get funded. On behalf of all the members of the said committee including Prof. Daniel Egbe from the Institute of Polymeric Materials and Testing, Johannes Kepler, University of Linz, Austria, Prof Germaine Djuidjé Kenmoé, Dr. Claude Aloyem Kaze from HTTTC Bambili and Dr. Paigui Ngouateu Wouagfack, he reiterated the willingness of lecturers to guide students. From the chosen few, whose projects were selected because they aim to bring rural communities out of the dark, he expected their reification on the field in two years' time.

All in all, the massive turnout of students at the event and the high number of papers that were presented are clear evidence that youths are genuinely committed to find local solutions to energy problems. According to Prof. Gratien Atindogbe, the success of the event lies above all in the sacrifices they made to come to Abakwa to give quality papers. With these words, he echoed what Prof. Daniel Egbe, the coordinator of ANSOLE, had to say in his opening speech: ''ANSOLECAF 2016 could only take place because people had chosen to make sacrifices: the University of Bamenda, ANSOLE, its sponsors, Dr. Aloyem, and all those who could make it. When you are ready to make a sacrifice, you are a blessing not only to others, but also to yourself. So, learn to make sacrifices!''

Still on this chapter of sacrifice, the Director of HTTTC Bambili, Prof. Akume Daniel Akume, and the local organizing committee headed by the National Representative of ANSOLE in

Cameroon, Dr. Claude Aloyem Kaze from HTTTC Bambili, deserve special thanks for all their help and support before, during and after the event. Their dedication made for a stress-free conference. From the warm welcome they received to the hotel accommodation they were offered, including eru and water fufu served at the event's welcome dinner, conferees will gladly come again!

On the last day of the conference, it was agreed that more such events should be scheduled at least once a year to enlighten young researchers on alternative energy sources. Other recommendations include the creation of ANSOLECAF steering committee, the establishment of a project validation unit, the formation of young scientists' associations within universities, and the publication of an ANSOLE journal.

The next conference will be held at the National Advanced School of Public Works in 2017. The Multipurpose Vocational Training Centre of Bandjoun and the University of Bamenda will co-organise it in 2018. The University of Buea and the University of Ngaoundere will host it respectively in 2019 and 2020. Until then, students can already take this advice from Prof. Gratien Atindogbe: ''Take over with dignity, take over with an objective, take over because you want to change Cameroon and Africa.''



Participants at ANSOLECAF 2016 in front of amphi 340 oF HTTTC Bambili, University of Bamenda.



Manuela Attouh is a translator and conference interpreter by profession. She specializes in the translation of texts in the field of environment from English into French and vice versa. Contact: *manuelaattouh@gmail.com*.

Discover…

ACWA Power – Powering the Future



NOORo I, Morocco

As a Saudi-owned company with 50% of our projects operating in the Kingdom's desert environment, we're sharply aware of the critical reliable water sources and power generation: they are the twin building blocks of life. Yet our planet is facing shortages in both.

At ACWA Power, we address this challenge with long-term solutions, providing both power and desalinated water efficiently, reliably and safely at the lowest possible cost, while simultaneously building the foundations for social development and economic growth.

Our business model reflects our commitment to delivering long-term economic value. We aim to make profits from our investments over a 20 to 25 year lifecycle. We're in business for the long haul and not short term gain.

We use our strong market presence to drive down costs across the supply chain and rely on close collaboration with long term partners who share our outlook, underpinned by a policy of being investors in the plants which we build and operate.

This model means we have a vested interest in the success of the operations throughout their 25 year terms. With each facility we build, we take a stake in the prosperity and stability of the nations and communities in which we operate.



Hofa Wind, Jordan

We build close ties with our host communities, working hard to foster technically proficient local workforces and to nurture local SMEs in our supply chain, partnering and collaborating with governments – particularly through Public Private Partnerships (PPPs) – to build expertise in quick-to-market, efficient and reliable ongoing operations.

We believe tackling today's and tomorrow's water and power challenges requires a broad agnostic approach reinforced by the brightest global talent to remain technologically cutting edge.

That means we're not wedded to particular technologies but choose the most appropriate to meet project and community needs. Equally, we are fuel agnostic, using our experience, expertise and technological advantage to select the most efficient and reliable solutions for each challenge or opportunity.



Bokpoort CSP IPP, South Africa

Our energy portfolio is diverse, from solar and geo-thermal to wind and waste, but with a focus on renewables. Renewables currently make up 16% of our portfolio by project cost but represent almost 50% of our projects currently at financing stage.

At ACWA Power, we are acutely aware that our people and plants can make the difference in keeping the lights switched on and taps running. By focusing on excellence, sustainability and technological innovation for the long-term, we hope to deliver that, not just today but in 25 years' time and beyond.



Paddy Padmanathan is President and Chief Executive Officer of ACWA Power. He has served ACWA Power from 2005 steering it to become a leading private developer, owner and operator of power generation and desalinated water production plants headquartered in Saudi Arabia. Mr. Padmanathan also serves on the board of dijrectors of several companies all operating in the water and power sectors. **Contact**: padmanathan@acwapower.com.

Energies durables pour le développement rural en Afrique subsaharienne : Approche interdisciplinaire et défi organisationnel

C'est avec beaucoup d'empressement que nous partageons avec notre lectorat cet ouvrage commis par Marthe Djuikom et intitulé *Energies durables pour le développement rural en Afrique subsaharienne : Approche interdisciplinaire et défi organisationnel*. Spécialiste des questions de l'Energie et de Développement Rural, l'auteure, de nationalité camerounaise, fait le tour des problèmes d'énergie en milieu rural africain en 4 parties aux titres révélateurs : 1/ Approche de développement et pauvreté du milieu rural africain - Champ énergétique comme potentielle voie de reconstruction, 2/ Energie et Changement Social – Etude d'un cas régional et d'un cas local, 3/ Une démarche organisationnelle et un nouveau dynamisme pour le développement durable en milieu rural africain, et 4/ Chronologie d'un processus en évolution : lien entre théorie et pratique.

Paru aux Editions Universitaires Européennes le 13 janvier 2017, le livre peut être commandé en ligne à l'adresse suivante : http://www.morebooks.de/bookprice_offer_99efb5572a268a0b740cdad2762e8d86b53ff237?auth_token=d3d3LmVkaXRpb25zLXVlLmNvbTpkNmFlOGRmMWViYWVkYzNmMWE3N2U1NDU5ZTcxNjdiMA%3D%3D&locale=fr¤cy=EUR. Envie d'en savoir plus avant ? Lisez-plutôt ce résumé :

Ce livre est le produit d'une recherche appliquée qui a été initiée en 2003 par une étude pionnière au Cameroun portant sur les problématiques énergétiques en milieu rural africain. Elle permet d'attirer l´attention sur l'importance de la dimension énergétique dans la pérennisation de la précarité et de la pauvreté. Une pauvreté qui est considérée dans son sens le plus profond et le plus divers, c'est-à-dire comme une privation de «capabilité» et fondement de l'exclusion selon les travaux du professeur Amartya Sen (Prix Nobel d'Economie). Pédagogique et didactique, ce travail « sociotechnique » avec une thématique de prime abord uniquement technique, préconise une approche interdisciplinaire dynamique de développement

local selon Clarita Müller-Plantenberg, en s'appuyant sur un modèle d'incubation d'initiatives solidaires et d'entreprises énergétiques. Sa mise en application est à l'origine d'un projet interuniversitaire Nord-Sud, de nombreux travaux académiques et de la création d'un réseau des organisations de l'énergie notamment un institut des pratiques énergétiques. Un chapitre additionnel, rédigé en 2016 permet d'illustrer, analyser, et tirer les leçons de ce processus pour la recherche et l'entrepreneuriat durable.

C'est à la fois un manuel guide de travail dans le champ du développement en Afrique et un manuel pédagogique et de conseils pour toutes les organisations et toutes les personnes qui travaillent ou veulent travailler pour le développement et notamment en rapport avec les problèmes d'énergie en milieu rural africain, etc. Il est autant utile pour les universités, les établissements de formation professionnelle, les ONG de développement rural et de coopération internationale, les organisations de professionnels dans le secteur de l'énergie, les communes, les organisations des femmes, etc.



Marthe V. Djuikom a suivi un cursus pluridisciplinaire qui lui a permis d'acquérir une spécialisation en Energies et Développement Rural. Après un baccalauréat scientifique (mathématiques et physique) et une formation d'Ingénieur en application statistique au Cameroun, elle poursuit, parallèlement à ses activités professionnelles, une formation continue qui lui permet d'obtenir un Master en économie politique et un doctorat en sciences sociales option sociologie de développement à l'Université de Kassel (Allemagne). **Contact** : *djuikom2@yahoo.fr*.

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