

Office of Astronomy for Development

International Astronomical Union

South African Astronomical Observatory, Cape Town, SA

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A new brochure for the OAD!

The Office of Astronomy for Development has recently published its first brochure. As most of the [first year's funded projects](#) have been concluded and the [2014 projects](#) have started up, this release marks a significant milestone.

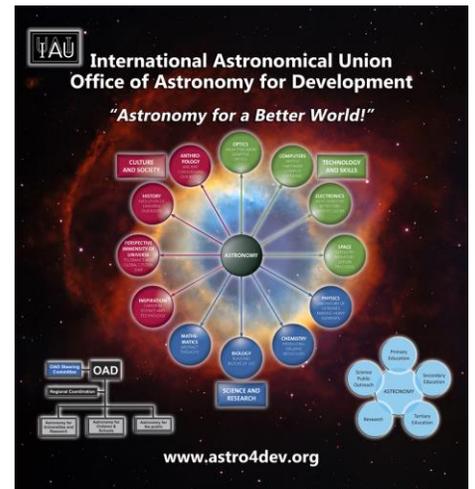
It reflects on the OAD's achievements since its inception with an overview of the major activities over the last three years, featuring summaries on funded projects of 2013, the regional offices around the globe, and other noteworthy activities. Additionally, the brochure draws attention to the OAD in preparation for the upcoming [call for proposals](#) for 2015 projects, which opens on the 1st of July 2014.

The OAD brochure will be distributed widely. A digital version is now available to download at www.astro4dev.org/downloads/.

News & Updates from the OAD

Projects 2014

During this reporting period the OAD concluded 16 grant agreements and transferred project funds totalling €67,722. In total, 23 projects will be carried out in 2014, representing a total amount of €95,483 provided by the IAU, along with some contingency funds. The remaining grant agreements and payments will be completed in the next quarter. Out of the 23 projects scheduled for completion in 2014, two have already



Astronomy for a better world!

The [International Astronomical Union](#) (IAU) adopted a [strategic plan](#) in 2009 that aims to realize the global developmental benefits of astronomy.

In order to implement this plan, the IAU established the [Office of Astronomy for Development](#) (OAD). It is hosted at the [South African Astronomical Observatory](#) (SAAO) in Cape Town, South Africa.

The OAD is a global coordinating centre for "astronomy-for-development" activities. The three focus areas are: Task Force 1 [Astronomy for Universities and Research](#); Task Force 2 [Astronomy for Children and Schools](#); and Task Force 3 [Astronomy for the Public](#).

been completed. Read more at www.astro4dev.org/funded-projects-2014/.

The [OAD's "wish list"](#) is being advertised on the OAD website in order to rally external support. All projects on the wish list received personalised feedback on their proposals during this quarter. Final reports and summaries of completed projects in 2013 can be found on the OAD website (www.astro4dev.org/funded-projects/).

Featured Project:

The National Optical Astronomy Observatory (NOAO) in Arizona, USA, led the Dark Skies Africa 2013 project under the leadership of [Dr. Constance Walker](#) to deliver a programme on light pollution awareness across Sub-Saharan Africa, through institutions in 12 African countries. The programme helped students identify wasteful and inefficient lighting and provided ways to reduce consumption. The goal was to inspire students to be responsible stewards in helping their community safeguard one of Africa's natural resources - a dark night sky.

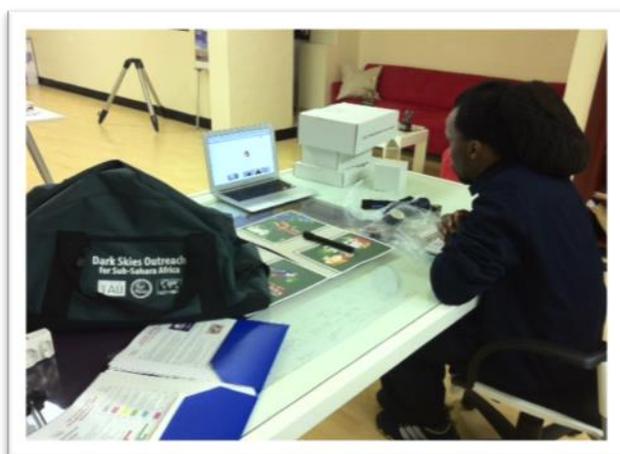
The programme's kit included complete instructional guides, equipment for six activities and a project on energy conservation and responsible lighting. The coordinators from the various institutions were trained on the activities in a series of Google+ Hangouts, and in turn trained local teachers in high schools. Students from the different countries then shared final class projects. The kits remain with the coordinators and so the project continues beyond the funding period.



Dr. Constance Walker

Connie Walker is an associate scientist at the National Optical Astronomy Observatory in Tucson (USA) who specializes in education and outreach. She is sits on the Boards of Directors for the Astronomical Society of the Pacific and the International Dark-Sky Association (IDA), as well as the IAU's commission on light pollution. She is also directing the popular international light pollution tracking campaign, GLOBE at Night. For her efforts in bringing dark skies awareness to the public, Connie won IDA's Hoag-Robinson award in 2011.

Contact Connie at cwalker@noao.edu



IAU-OAD special projects



From top to bottom: AstroEDU, the “Touch of the Universe” kit on which AstroSense is building, AstroComputing and AstroVARSITY.

AstroEDU (astroedu.iau.org), a project of the Task Force on Children & Schools, gives educators around the world access to the best astronomy activities. It is an open-access platform for peer-reviewed astronomy education activities. It allows educators to discover, review, distribute, improve, and remix educational astronomy activities. Partners include [UNAWE](#) and [LCOGT](#).

AstroVARSITY (astro4dev.org/astrovarsity/), led by OAD intern [Laure Catala](#), intends to provide astronomy courses and tutorials for Maths & Physics lecturers at undergraduate level to enhance science teaching and start an astronomy module within their departments. Hands-on activities, based on an off-the-shelf telescope and instruments package, allow for practical experiments and research.

AstroComputing (astro4dev.org/astrocomputing/), led by OAD intern [Rajin Ramphul](#), explores ways in which computing skills in astronomy

Upcoming Events

April 10th

TEDx talk by Wanda Diaz, South Africa

April 29th – May 1st

IAU Executive meeting, Australia

May 30th – June 6th

JEDI Workshop, Namibia

June 30th – July 4th

4th East African Astronomy Workshop, Rwanda

Past events

January 23rd – 28th

OAD Steering Committee and Task Force Chairs meetings

February 17th – 21st

SKA Transformational Science Meeting, SA

March 4th – 5th

IAU OAO and IYL2015 meeting, France

March 10th – 11th

NASA Asteroid Grand Challenge workshop, SA

March 12th – 18th

SciFest Africa, SA

March 24th – March 25th

SKA communication meeting, South Africa

can be applied to other areas. One activity was a Python programming workshop targeted at non-astronomy university students. The other was the implementation of astronomy and educational software on a Raspberry Pi (a sub-\$50 credit card sized computer) for use by teachers and students as a laptop alternative.

The OAD has chosen to expand on the ideas of one of its funded projects and further explore the area of astronomy for the visually impaired. The new project, **AstroSense** (astro4dev.org/astrosense/) has taken two main forms: (1) expansion of the production and distribution of tactile astronomy resources, and (2) exploration of the use of sound to analyse astronomical data and teach mathematics. The latter was proposed and is being driven by OAD visitor and blind astronomer **Wanda Diaz-Merced** (see right panel).

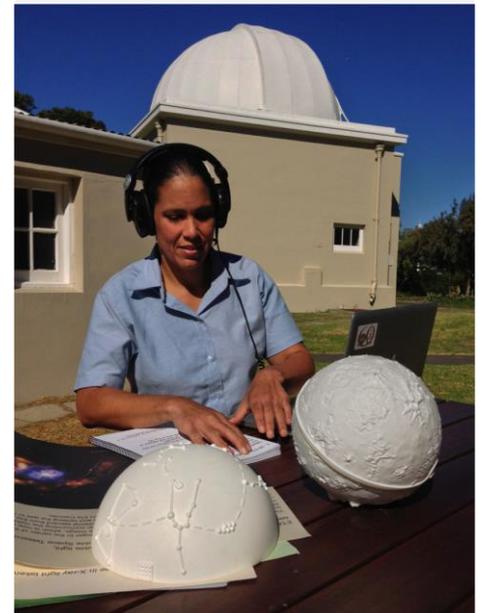
Following a meeting of Task Force Chairs, the OAD will be providing seed funding for flagship projects in each of the Task Forces. These flagship projects were identified with the Task Forces during this quarter and will get underway in the coming months.

Highlights of meetings/conferences

The following trips and events took place in this quarter: (i) OAD Project Officer attended the [American Astronomical Society meeting](#) in Washington, USA, to give a talk about the OAD and another one at a special session on Astronomy in Africa. (ii) OAD Director attended the launch of the East African Regional Node of the OAD in Addis Ababa, Ethiopia. The IAU was represented by Assistant General Secretary **Piero Benvenuti** and included a visit to the newly constructed telescopes at the [Entoto Observatory and Space Science Research Centre](#). The event was highly publicised in local and international media. (iii) The OAD hosted the annual face-to-face meeting of its Steering Committee at its offices in Cape Town. The meeting (and part of the meeting by Task Force Chairs) was attended by IAU General-Secretary **Thierry Montmerle** (iv) Immediately following the Steering Committee meeting the OAD hosted a workshop for the Chairs and Vice Chairs of the three Task Forces. This was useful to reflect on the Call for Proposals process

A 3D printer at the OAD!

AstroSense is an OAD project led by Dr. Wanda Diaz-Merced, a blind astrophysicist and computer scientist who had developed software to analyze astronomical data through sound. Additionally, the OAD supports initiatives in the development of tactile astronomy resources, such as the Touch of the Universe project.



Dr. Wanda Diaz, exploring the Touch of Universe kit at the South African Astronomical Observatory

In furthering this cause, the OAD recently acquired a 3D printer and scanner to explore the possibilities in bringing astronomy to the visually impaired (3D prints of astronomical objects, phenomena, instruments, etc.).

The OAD now calls on you to submit your ideas for printing 3D resources!

Contact us at info@astro4dev.org.

and plan for future calls and activities. (v) OAD Director attended a [DST-ESASTAP](#) workshop in Cape Town on EU-South Africa science and technology collaborations, and opportunities for EU funding for science in Africa. (vi) The OAD was invited to exhibit a special project (using the Raspberry Pi for astronomy and science education) at a reception of the British High Commission in Cape Town. (vii) The OAD facilitated and participated in a [South Africa-US virtual workshop on the NASA Asteroid Grand Challenge](#). (viii) OAD Director attended [Scifest Africa](#) in Grahamstown where he led a panel discussion on Astronomy in Africa, amongst other tasks as Chair of the Scientific Advisory Committee. The OAD's involvement with Scifest Africa is to explore the spreading of the festival across the African continent. (ix) OAD Director attended a stakeholder workshop by [Scidev.net](#) in Cape Town on the impact of science and science communication on development. (x) OAD Project Officer coordinated a [virtual meeting](#) via Skype with French-speaking stakeholders regarding the OAD and the potential establishment of a Francophone language expertise centre. (xi) The OAD jointly hosted and participated in a [meeting of the SKA International communications team](#) made up of representatives from different SKA partner countries. The OAD could play a role in expanding the reach of societal benefits derived from SKA beyond the partner countries.

Special visitors to the OAD:

The OAD hosted several special guests during this quarter: (i) [Wayne Rosing](#), the founder of the [Las Cumbres Observatory Global Telescope Network](#) (LCOGT) visited the OAD offices (ii) The OAD was part of a delegation that hosted the Deputy Minister of Science and Technology, [Michael Masutha](#), at the [SAAO](#) in Sutherland. (iii) [Jim Adams](#), NASA Deputy Chief Technologist, met with OAD Director several times during his stay in South Africa, to make progress on a potential NASA/OAD collaboration regarding the [Asteroid Grand Challenge](#). (iv) [Michael Backes](#) from Namibia visited the OAD to discuss collaborations with the [High Energy Stereoscopic System](#) (HESS) and Namibia's proposal to host the [Cerenkov Telescope Array](#) (CTA). (v) [Solomon Tessema](#), Director of the [Entoto Observatory and Space Science Research Centre](#), visited



Sze-leung Cheung

News from the IAU Office for Astronomy Outreach

Sze-leung Cheung, formerly Outreach Officer and Science Instructor of The University of Hong Kong, has been appointed as the new IAU International Outreach Coordinator for the [IAU Office for Astronomy Outreach](#) (OAO). The OAO is hosted by the [National Astronomical Observatory of Japan](#) (NAOJ) and based at its headquarters in Mitaka, Tokyo.

“Greetings! This is Sze-leung Cheung. I have officially taken up the position at IAU Office for Astronomy Outreach (OAO) since 1 April 2014. I will take over the editorship of the OAO newsletter from my fellow colleagues at the IAU Office of Astronomy for Development and I would like to take this opportunity to thank the OAD for the efforts to keep this newsletter running. It is an exciting and challenging time for me, I am so glad to get on board. If you have any suggestion on this newsletter, please feel free to write me at cheungszeleung@iau.org.”

the OAD to discuss the detailed way forward for the East African Regional node based in Ethiopia. (vi) [Prosperity Simpemba](#) from the [Copperbelt University](#) in Zambia visited the OAD to discuss the way forward on the Southern African regional node. [Michael Backes](#), [Prosperity Simpemba](#) and [Solomon Tessema](#) participated in the [NASA Asteroid Grand Challenge Virtual Workshop](#) held at the SAAO. These three visitors also participated in the panel discussion at Scifest Africa on Astronomy in Africa. They each received materials and had personal interactions with [Scifest Africa](#) Director, [Anja Fourie](#), on establishing a science festival in their home countries. (vii) The OAD is hosting Puerto Rican astronomer [Wanda Diaz](#) who is working on special projects for the OAD as well as delivering talks to schools, especially schools for the blind. During this quarter Wanda was invited to meet with the Deputy Minister of Science and Technology who will be accompanying her on school visits early in the next quarter.

Regional Nodes & Language Expertise Centres

The East African regional node (<http://eastafrika.astro4dev.org/>) was launched in Addis Ababa, Ethiopia on 10 January 2014 at a high profile event involving the Ethiopian Minister of Science and Technology, Her Excellency [Demitu Hambisa](#), and IAU Assistant General Secretary [Piero Benvenuti](#). This is the third regional node to be established after East Asia in China (<http://eastasia.astro4dev.org/>) and South East Asia in Thailand (www.narit.or.th/en/index.php/sea-road). Both these existing regional nodes submitted annual reports to the OAD during this quarter, which can be found on their respective websites. Following the approval by the EDOC of a Southern African regional node in Zambia, an agreement was also iterated and approved with the host institution, the [Copperbelt University](#). By the end of the quarter discussions were underway regarding the launch of this fourth regional node of the OAD in the coming months. New expressions of interest include the establishment of a language expertise centre for the Portuguese language and a new regional node in Brazil. Development of proposals towards an Andean regional node in Colombia and an Eastern European node in Poland/Armenia are ongoing.

IAU-OAD recommended projects for 2014

In 2013, twenty-three projects (to be implemented in 2014) were selected for funding. Due to the limited funding currently available and the large number of proposals, only about 10% of the number of projects could be funded thus far.

Hence recommended projects that could not be funded are placed onto a list and advertised on the OAD website at www.astro4dev.org/2014-wish-list-projects/. The OAD then works towards raising additional funds for them and providing assistance wherever possible, such as promoting them internationally and providing guidelines for monitoring and evaluation. It is clear that the proposals process itself often helps the leaders of these prospective projects develop skills for writing proposals and planning a project.



Click on the map to access the recommended projects list

The OAD calls for assistance and advice to help make these recommended projects a reality. Potential donors who may want to adopt certain projects can either contact the project leaders directly or enlist the support of the OAD to manage the funds for the project.

SEA-ROAD organises its first winter school

From 27 to 30 January 2014, the [National Astronomical Research Institute of Thailand](http://www.narit.or.th/en/index.php/narit-kasi) (NARIT) and the [Korea Astronomy and Space Science Institute](http://www.kasi.kyungpook.ac.kr/) (KASI) organised a Radio Astronomy Winter School in Chiang Mai, Thailand (<http://www.narit.or.th/en/index.php/narit-kasi>). The Director of NARIT, Professor [Boonrucksar Soonthornthum](#), proudly announced: "This Winter School is the first training initiative we have organised under the SEA-ROAD banner, and was designed to respond to the recent growth of radio astronomy in Indonesia, Korea, Malaysia, Thailand and Vietnam and encourage the creation of a pool of young radio astronomy graduates in Southeast Asia." The 45 successful applicants came from Cambodia, Indonesia, Korea, Malaysia, the Philippines, Thailand and Vietnam to attend. NARIT Senior researcher and Chair of the Organising Committee, Professor [Wayne Orchiston](#), was stunned by the level of interest shown in this Winter School: "It was very sad that we had to turn down some excellent applicants who already were undertaking Masters degrees, but this clearly demonstrates the demand for these specialised regional training programs, as advocated by the OAD." The 2014 Winter School also attracted an excellent pool of lecturers, from England/New Zealand, Germany, Indonesia, Korea, the Philippines, Thailand and Vietnam. Head of the Korean delegation, Dr [Mihn Youngchul](#), was delighted that KASI was able to take part in this training program, and he met with Professors [Boonrucksar Soonthornthum](#) and [Wayne Orchiston](#) and Dr [Busaba Kramer](#) from the [Max-Planck-Institut für Radioastronomie](http://www.mpg.de/5010116/radioastronomie) in Germany to discuss future NARIT-KASI collaboration in training and research.

Staff and students at the NARIT-KASI Winter School in Radio Astronomy that took place from 27 to 30 January 2014 in Chiang Mai, Thailand



The South East Asia ROAD



The South East Asian ROAD (SEA-ROAD) was formally established during the IAU General Assembly in Beijing in August 2012, and is hosted at the [National Astronomical Research Institute of Thailand](http://www.narit.or.th/en/index.php/narit-kasi) (NARIT), in Chiang Mai. The SEA-ROAD is committed to the development of astronomy in the [ASEAN](#) region (Association of South East Asian Nations). The countries in this region are: Union of Myanmar, Thailand, Lao People's Democratic Republic, Kingdom of Cambodia, Socialist Republic of Vietnam, Malaysia, Republic of Singapore, State of Brunei Darussalam, Philippines and Republic of Indonesia.

In conjunction with the OAD, the SEA-ROAD is responsible for overseeing and assisting in the development of the following areas of astronomical activity in these ten South East Asian nations: 1) University research and teaching (undergraduate & graduate) in astronomy, 2) Teaching of astronomy in schools, 3) The training of teachers in astronomy and 4) Increasing astronomy awareness among the general public. This is achieved through key organisations such as the South East Asian Astronomy Network and the South East Asian Young Astronomers Collaboration.

More information at:

narit.or.th/en/index.php/sea-road