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# MAGDAS School Report

#### "ISWI / MAGDAS School on Litho-Space Weather" (formal title)

15-20 August 2011

Prof. K. Yumoto (SERC)

Prof. L.B. Kolawole (RUN)

Dr A.B. Rabiu (NASRDA)

Venue: Redeemer's University, near Lagos, Nigeria.

Co-organizers:

Space Environment Research Center (SERC), Kyushu Univ., Japan National Space Research and Development Agency (NASRDA), Abuja, Nigeria Redeemer's University (RUN), Redemption City, Nigeria African Regional Centre for Space Science and Technology Education - (ARCSSTE-E), Ile-Ife, Nigeria Federal University of Technology, Akure, Nigeria

#### SUMMARY OF THIS SCHOOL

An important agenda of ISWI is *Capacity Building* of instrument hosts in the field. This has three main components: (1) Building their ability to maintain the instrument, (2) building their ability to analyze data from their instruments, and (3) building their ability to perform research (i.e., publish papers) based on (1) and (2). Accordingly, the main goal of this ISWI/MAGDAS school was to advance *Capacity Building* within the African MAGDAS community. This goal was achieved.

The plan for this one-week summer School was to invite persons embarking on a career in space weather science. The School achieved a good mix of students – a total of 51 students. Ten came from MAGDAS host stations: (1) Addis Ababa (Ethiopia), (2) Abuja (Nigeria), (3) Aswan and Fayum (Egypt), (4) Dar Es Salaam (Tanzania), (5) Hermanus (South Africa), (6) Khartoum (Sudan), (7) Lagos (Nigeria), (8) Lusaka (Zambia), (9) Maputo (Mozambique), and (10) Nairobi (Kenya). The other students came from various parts of Nigeria. It should be pointed out that the MAGDAS station students delivered excellent oral reports on their station status.

The number of instructors was eight: (1) Prof. K. Yumoto, SERC-Japan, (2) Dr. Babatunde Rabiu, NASRDA-Nigeria, (3) Dr. Vafi Doumbia University of Cocody, Cote d'Ivoire, (4) Dr. Yoshikawa, SERC-Japan, (5) Dr. S. Abe, SERC-Japan, (6) Dr. A. Ikeda, SERC-Japan, (7) Mr. G. Maeda, SERC-Japan, and (8) Magdi, from Sudan, a Phd student under Prof. Yumoto at Kyushu University, Japan.

THE DAY-BY-DAY PROGRAM OF THIS SCHOOL CAN BE FOUND ON THE NEXT PAGE.



ISWI / MAGDAS School on Litho-Space Weather Venue: Redeemer's University, Mowe, Near Lagos, Nigeria Dates: 15 – 20 August, 2011



## PROGRAM

	8:30 - 10:00	10:00- 10:30	10:30 – Noon	Noon – 1:00	1:00 - 2:30	2:30 – 3:00 –	3:00-5:00
Day 1: Monday 15 Aug 2011				Arr	ival		
<b>Day 2:</b> Tuesday 16 Aug 2011	Opening ceremony		Introduction to MAGDAS KY		Data Analysis I Abe, Magdi		Data Analysis II (EE- index, Pc5 index) Magdi, KY
Day 3: Wednesday 17 Aug 2011	Prnciples of geomagnetism		Ionospheric currents		Tutorials on MAGDAS data Abe, Magdi	reak	MAGDAS operation and maintenance (YU-8T and MAG9) AI, GM
Day 4: Thursday 18 Aug 2011	Equatorial ionosphere ABR	Tea break	Space weather Abe, AI	Lunch break	Station Status reports <b>Rep from each station.</b>	Tea break	Lithospheric dynamics KY
<b>Day 5:</b> Friday 19 Aug 2011	Analysis of satellite geomagnetic data I VD	Tea	Estimation of Equatorial Electrojet from MAGDAS data / Group Research Discussion ABR	Lunc	Laboratory work on Space weather Abe, AI		Laboratory work on Space weather Abe, AI; Data citation GM
Day 6: Saturday 20 Aug 2011	Analysis of satellite geomagnetic data II VD		Open Discussion & Closing ceremony		Excursion: Visit to places of interest in Lagos		
<b>Day 7</b> : Sunday 21 Aug 2011		Departure					

KY - Prof. K Yumoto; AY - Dr. Yoshikawa; VD - Dr. Vafi; GM - Engr. G. Maeda; AI - Dr. A. Ikeda; ABR - Dr. A. B. Rabiu; Abe - Dr Abe

## ALL TALKS CAN BE VIEWED ON THE WEB.

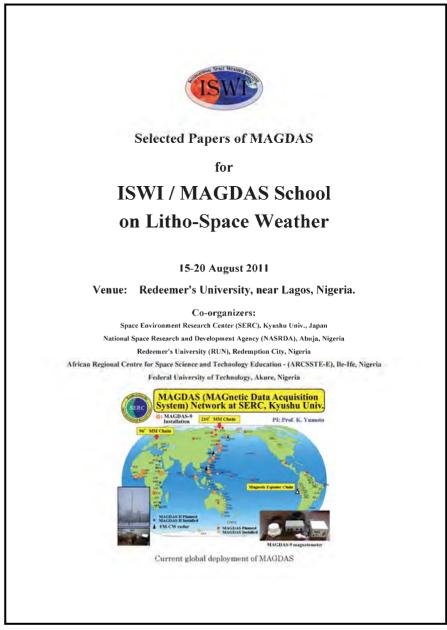
As can be seen from the PROGRAM (previous page), each instructor gave one or more talks during The School. Each talk included a Power Point presentation. Each presentation has been converted to pdf and can be downloaded from the Web. Here is how to do it:

Research Core (GIN) Publication	First, go to the SERC homepage: www.serc.kyushu-u.ac.jp (and select English version).				
Space Weather Information	On the left side of it (near the bottom) you will see this green-and-yellow				
Today's Space Weather	column.				
Pc5 INDEX					
EE Index					
Pi2 Index (under const.)					
Data Service					
MAGDAS					
MAGDAS-II					
CPMN and Others					
Misc.	Under " <b>Misc</b> .", click on " <b>MAGDAS School (Lagos, 2011)</b> ".				
MAGDAS Newsletter	You will jump to a page that gives you full access to all presentations, List of				
only member	Participants, and access to "Selected Papers of MAGDAS", which was a				
Link	textbook published for this school. It contains 24 MAGDAS-related papers;				
MAGDAS Session (Cairo, 2010)	please see the next page to learn more about this book.				
MAGDAS School (Lagos, 2011)	please see the next page to learn more about this book.				
	Click here to access all MAGDAS School material.				

This was the 264-page textbook that was created for the MAGDAS School. It was printed up and distributed at The School. The title of the book is

## "Selected Papers of MAGDAS"

It contains 24 MAGDAS-related papers (see *Table of Contents* on the next page). This book is available to you in pdf (52 MB). Please refer to the previous page to understand how you can get this pdf copy for you and your students. This book has the strong endorsement of Prof. Hans Haubold of the United Nations Office for Outer Space Affairs (UNOOSA).



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# Selected Papers of MAGDAS

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#### Created by G. Maeda on 25 August 2011.

#### MAGDAS School Participants holding the "Selected Papers of MAGDAS" -- the textbook for this school (15-20 August 2011)



#### The Convener and the Instructors of MAGDAS School (RUN, Nigeria)



Prof. L. B. Kolawole (Nigeria) The Convener.



Prof. K. Yumoto(Japan)Dr A.B. RabiuDirector of(Nigeria)SERC and PINASRDAof MAGDASProject.



Prof. Vafi Doumbia (Cote d'Ivoire) Univ. of Cocody



Dr A. Yoshikawa (Japan)



Dr S. Abe (Japan) Dr A. Ik (Japan)



Dr A. Ikeda (USA)



А

В

С

Magdi (Sudan), whose Phd supervisor is Prof. K. Yumoto of Kyushu University, Japan.

l in<--- attached to SERC, Kyushu University, Japan --->



This photo taken on 16 August 2011 immediately after the Opening Ceremony.

# ISWI/MAGDAS School on Litho-Space Weather

(15-20 August 2011, Redeemer's University, near Lagos, Nigeria)



This photo taken on 20 August 2011 immediately after the Closing Ceremony.

# ISWI / MAGDAS School on Litho-Space Weather

(15-20 August 2011, Redeemer's University, near Lagos, Nigeria)

### FEEDBACK ON MAGDAS SCHOOL

#### Received from Prof. Vafi Doumbia (University of Cocody, Abidjan) on 8 Sept 2011:

#### About MAGDAS school:

I am very grateful to the project PI, Professor Yumoto, and all the SERC team members who have acted to make my attendance possible. I have really appreciated and enjoyed the Lagos MAGDAS School 2011. It was very successful and, I think, most of the participants including myself have taken very large advantages to this opportunity to strengthen our knowledge in different fields. Other important advantage of this school was the human warmness, joy and gladness were clearly visible on the faces of all the participants. And finally, it offered very good opportunity of scientific collaboration. For instance, many participating students are already requesting my co-supervision of their PhD. ..... Really interesting.... Hopefully, many other future MAGDAS Schools.

> Best regards, Vafi

#### Received from Magdi (Sudanese Phd student under Prof. Yumoto) on 12 Sept 2011:

.... Any way that's a good example of what Dr. Vafi pointed out when he said "other important advantage of this school was the human warmness, joy and gladness were clearly visible on the faces of all the participants"; that's entirely right, among this human warmness is the serious desire of all participants to establish a human networking that is when every body contributed by giving inputs to the Bye-Laws of the Africa MAGDAS Association (AMAGDASA), which is inaugurated collectively by all participants representing Africa MAGDAS host institutions; I think this should also be included within the human warmness which is stated by Prof. Vafi. I pray we will meet again in a similar event, and we will work for this, this time around through our association (AMAGDASA). Please let's all together keep in contact, posting our news and keep intact the human warmness we'd established.

## **FEEDBACK ON The Selected Papers of MAGDAS**

Just today [9 Sept. 2011] I received the Proceedings titled "Selected Papers of MAGDAS for ISWI/MAGDAS School on Litho-Space Weather, 15-20 August 2011, Redeemer's University, Lagos, Nigeria". This is an outstanding scientific publication making available a collection of papers that are related to or emanated from IHY/ISWI/MAGDAS, published in the international literature in the period of time 1996-2010 (15 years!). I would like to make the recommendation to MAGDAS to mail this Proceedings volume to each of the PIs of the 15+ ISWI instrument arrays as identified in United Nations General Assembly document A/AC.105/994 (attached). Encourage them to bring out a similar Proceedings volume.

> Professor Hans J. Haubold UN Office for Outer Space Affairs Vienna International Centre P.O. Box 500, A-1400 Vienna, Austria

## List of Participants for MAGDAS School (15-20 August 2011)

No.	Country	Instructor	Name	Gender	Affiliation	email address	photo
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43	Japan	Yes	Dr. Abe Shuji	М	SERC, Kyushu University, Japan	
44	Japan	Yes	Dr. Ikeda Akihiro	М	SERC, Kyushu University, Japan	
45	Sudan	Yes	Yousif suliman Magdi Elfadil	М	SERC, Kyushu University, Japan	
46	Japan			М	SERC, Kyushu University, Japan	
47	Cote d'Ivore	Yes	Prof. Vafi Doumbia	М	University di Cocody, Abidjan, Cote divore	
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	Nigeria		Oloketuyi Jacob	M	Federal University of Technology, Akure	<u> </u>
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Note:

SERC = Space Environment Research Center (Director is Prof. K. Yumoto) ARCSSTEE = African Regional Center for Space Science Technology Education English. NASRDA = National Space Research and Development Agency.

# END OF MAGDAS SCHOOL REPORT (created in September of 2011).

