



# PGIS News

Quarterly update of the Activities and Progress of the Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka



## HIGHLIGHTS

➤ RESCON 2015

➤ AWARDS

➤ DEGREES AND  
DIPLOMAS

➤ NEWS

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Participants, including the dignitaries, at the inaugural session of the PGIS Research Congress held on 9<sup>th</sup> and 10<sup>th</sup> October 2015 at the PGIS

Prof. H M D Namal Priyantha, Director of the PGIS handing over a memento to the Keynote Speaker, Dr. Sumio Iijima

## PGIS Research Congress 2015

'PGIS Research Congress 2015' was held on 9<sup>th</sup> and 10<sup>th</sup> October 2015 at the PGIS. Chief Guest, Prof. Upul Dissanayake (Vice-Chancellor, University of Peradeniya), Guest of Honour, Prof. Sirimali Fernando (Chairperson, National Science Foundation), Prof. H M D Namal Priyantha (Director, PGIS), Prof. Anura Wickramasinghe (Dean, Faculty of Science) and Dr. Anoma Perera (Chairperson, Organizing Committee) addressed the inaugural session of the congress. Keynote Speaker, Prof. Sumio Iijima, a world renowned scientist (member of the Japan Academy and Graduate School of Science and Technology, Meijo University, Japan) delivered the Keynote Address. There were 406 participants comprising of postgraduate students, academics and researchers representing universities and research institutes both local and foreign. About 150 presentations were made during the Technical Sessions covering the following five themes: Earth and Environmental Sciences; Information and Communication Technology, Mathematics and Statistics; Life Sciences; Physical Sciences; Science Education. Dr. Buddhika Dassanayake was the Congress Secretary.



Authors presenting their research at the technical sessions of the congress



**Director,  
PGIS**



**Vice-Chancellor,  
University of  
Peradeniya**



**Dean,  
Faculty of Science,  
University of  
Peradeniya**



**Chairperson,  
National Science  
Foundation**



**Chairperson,  
RESCON 2015**



**Prof. Tomonori Kawakami (Department of Environmental Engineering, Toyama Prefectural University, Japan) addressing the symposium participants**

## 4<sup>th</sup> International Symposium on Water Quality and Human Health: Challenges Ahead

The above symposium organized and conducted by the Board of Study in Environmental Science of the PGIS was held on 1<sup>st</sup> and 2<sup>nd</sup> August 2015. 101 researchers representing students, academics and scientists participated. About 50 presentations were made during the symposium by participants from Sri Lanka, Japan, India and Brunei. Dr. S Yatigamma and Mr. C Wijesundara coordinated the symposium.

## 3<sup>rd</sup> National Workshop on Scientific Data Handling, Analysis and Interpretation

The above workshop was held on 14<sup>th</sup> August 2015 at the PGIS for 66 participants. Students, academics and researchers from different fields, such as science, medicine, engineering, allied health sciences and veterinary sciences participated. The workshop organized by Dr. N C Bandara and Mr. Anushka Liyandeniya was highly commended by the participants.

## Awards

### SLAAS General Research Committee (GRC) Awards 2015

Prof. M A K L Dissanayake, a former director of the PGIS, receiving the SLAAS GRC Award for 2015 from the Minister of Science, Technology and Research, Hon. Susil Premajayantha on 30<sup>th</sup> November 2015 at the BMICH.



### President's Awards for highly rated scientific research published in 2013

#### Awardees affiliated with PGIS, University of Peradeniya:

Prof. H M N Bandara, Department of Chemistry, University of Peradeniya

Prof. A D L C Perera, Department of Chemistry, University of Peradeniya

Prof. R Chandrajith, Department of Geology, University of Peradeniya

Dr. B S Dassanayake, Department of Physics, University of Peradeniya

Prof. M A K L Dissanayake, National Institute of Fundamental Studies, Kandy

Prof. C V S Gunatilleke, Department of Botany, University of Peradeniya

Prof. I A U N Gunatilleke, Department of Botany, University of Peradeniya

Dr. C V Hettiarachchi, Department of Chemistry, University of Peradeniya

Prof. D N Karunaratne, Department of Chemistry, University of Peradeniya

Dr. S Madawala, Department of Botany, University of Peradeniya

Dr. S P K Malaviarachchi, Department of Geology, University of Peradeniya

Dr. M Meegaskumbura, Department of Molecular Biology and Biotechnology, University of Peradeniya

Prof. H M T G A Pitawala, Department of Geology, University of Peradeniya

Dr. S Rajapakse, Department of Molecular Biology and Biotechnology, University of Peradeniya

Prof. R Sivakanesan, Department of Biochemistry, University of Peradeniya

## National Science Foundation (NSF) Awards

**Award for the Support Scheme for Supervision of Research Degrees (SUSRED)** - Prof. B S B Karunaratne,  
Department of Physics, University of Peradeniya

**Technology Grant Award** - Prof. M M A N Navaratne,  
Department of Chemistry, University of Peradeniya



Group photograph of the NSF award recipients with the dignitaries

## Institute of Applied Statistics Sri Lanka (IASSSL) Awards for the Best Research Projects, Postgraduate category

### 2014 Awardees

Mr. K W G D H Rajapaksha (Gold Medal)

Supervisor - Dr. K Perera

Ms. U P G Lakmali (Silver Medal)

Supervisors - Dr. K Perera

Dr. A Kankanamge

Ms. S H Shajitha (Bronze Medal)

Supervisor - Dr. K Perera



2014 Award Recipients



2015 Award Recipient

### 2015 Awardees

Ms. D D H Rathnayake (Silver Medal)

Supervisors -

Dr. K Perera

Prof. P Wickramagamage

## Elsevier Reviewer Recognition Certificate in 2015

Dr. P G Mantilake received the Elsevier Reviewer Recognition certificate in 2015 for reviewing 11 papers of Materials Science & Engineering C Journal. Dr. Mantilake, a former student of the PGIS, currently serves as a post-doctoral fellow at Sri Lanka Institute of Nanotechnology and also as a Visiting Lecturer at the PGIS.

# PGIS - Young Researchers' Forum (YRF)

## YRF Cricket Encounter

The annual cricket match of the YRF was held on 13<sup>th</sup> September 2015 at the University softball ground. This event was organized to build up interactions not only among research students but also with the staff of the PGIS. It was a successful event with the participation of teams from the University of Peradeniya, PGIS staff and YRF.



Players at the annual cricket match of the YRF held on 13<sup>th</sup> September 2015 at the University softball ground

## YRF Colloquium Series



Top L: Prof. Dr. Dr.h.c. mult. Manfred Domroes delivering a seminar on 'Geodiversity' at the PGIS auditorium on 23<sup>rd</sup> September 2015. Top R: Visiting students of Mainz University, Germany, and students of the University of Peradeniya at the tea break of the interactive session. Bottom: Group photograph



## Seminar on 'Geodiversity' and an Interactive Session

A seminar on "Geodiversity - the miraculous key to discover Sri Lanka's treasured serendipity" was organized by YRF in collaboration with the PGIS on Wednesday 23<sup>rd</sup> September 2015. The resource person, Emeritus Prof. Dr. Dr.h.c. mult. Manfred Domroes of the University of Mainz, Germany, delivered a lecture based on his 50 years of scientific contribution to Sri Lanka. The interactive session held at the end of the seminar between visiting students of Mainz University, Germany, and undergraduate and postgraduate students of the University of Peradeniya provided a good opportunity for both parties to get exposure to two different social and scientific cultures.



## Guest Lecture on ‘Chronic Kidney Failure in North Central Region (NCR)’

Dr. Kamal Gammampila, an expert in Physics, Radiotherapy and Rectal Physiology, attached to the National Institute for Health Research, National Heart and Lung Institute and Imperial College, London, gave a talk on ‘Chronic Kidney Failure in NCR’ on 28<sup>th</sup> September 2015. This event was organized jointly by the International Research Center (InRC) and PGIS/YRF.

## Workshop on ‘Ion Chromatography Applications’

A workshop on Ion Chromatography Applications organized by YRF in collaboration with Analytical Instruments (Pvt.) Ltd. was held on 4<sup>th</sup> November 2015. The resource person was Dr. Markus Laebli, Product Specialist from Metrohm, Switzerland. Undergraduate and postgraduate students from different disciplines participated in this event and obtained knowledge on high-tech Ion chromatographic techniques.



Dr. Markus Laebli, Product Specialist from Metrohm, Switzerland, delivering a presentation on ‘Ion Chromatography Applications’ on 4<sup>th</sup> November 2015 at the PGIS

President/YRF - Mr. Mudassar Marso, M.Phil. candidate (Chemical Sciences)

Secretary/YRF - Ms. Menaka Ariyaratne, Ph.D. candidate (Plant Sciences)

Contact details: E-mail - [yrfpgis@gmail.com](mailto:yrfpgis@gmail.com); Website - <http://www.pgis.lk/yrf>

## Workshop on ‘Science for Technology’



During a technical session of the workshop on ‘Science for Technology’ held on 11<sup>th</sup> December 2015

The PGIS in collaboration with the Faculty of Science organized a one-day workshop on “Science for Technology” on 11<sup>th</sup> December 2015 at the PGIS. The workshop was organized in an attempt to fill the gap between the academia and the industrial sector. Presentations were made by resource persons representing both sectors. Commercialization of scientific findings, barriers faced by scientists for industrial/commercializable research, and possible funding opportunities for such research were highlighted at the workshop. Further, services and academic programmes offered by the PGIS/Faculty, and the requirements of the industrial sector were also discussed. Dr. Chamara Jayasundara coordinated the workshop.

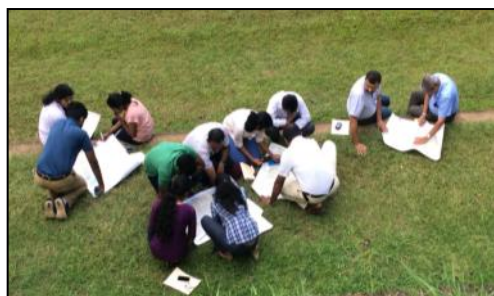
# 63<sup>rd</sup>, 64<sup>th</sup>, 65<sup>th</sup> and 66<sup>th</sup> Short Courses and 18<sup>th</sup> and 19<sup>th</sup> Advanced Short Courses on ‘GIS and Applications’



Participants of the 63<sup>rd</sup> Short Course  
(July 6 - 11, 2015)



Participants of the 65<sup>th</sup> Short Course  
(September 21 - 24, 2015)



Participants of the 66<sup>th</sup> Short Course  
(November 23 - 28, 2015) during a field class

Six short-term programmes (63<sup>rd</sup>, 64<sup>th</sup>, 65<sup>th</sup> and 66<sup>th</sup> short courses and 18<sup>th</sup> and 19<sup>th</sup> advanced short courses) in the series on GIS and Applications were conducted at the PGIS by the Board of Study in Earth Sciences from July to November 2015. All the programmes were coordinated by Dr. Jagath Gunatilake.

Postgraduate students following MSc programmes in Engineering Geology and GIS & Remote Sensing went on a 3-day field excursion to Diyatalawa, Poonagala and Diyaluma from 1<sup>st</sup> to 3<sup>rd</sup> August 2015. The excursion was organized by Dr. Jagath Gunatilake, Coordinator of the M.Sc. programmes and Chairperson of the Board of Study in Earth Sciences.



M.Sc. students during a field excursion to Diyaluma

Programme	Dates	No. of Participants
63 <sup>rd</sup> Short Course	July 6 - 11	24
64 <sup>th</sup> Short Course	Aug. 31 - Sep. 5	12
65 <sup>th</sup> Short Course	Sep. 21 - 24	16
66 <sup>th</sup> Short Course	Nov. 23 - 28	12
18 <sup>th</sup> Advanced Short Course	Aug. 24 - 29	12
19 <sup>th</sup> Advanced Short Course	Nov. 9 - 14	10

## Meeting with Foreign Delegates

Delegations from Japan and Malaysia visited the PGIS on 7<sup>th</sup> December 2015 to discuss collaborative research programmes.





## Inauguration of M.Sc. Programme in Science Education - Special Batch

M.Sc. programme in Science Education for a special batch was inaugurated on 10<sup>th</sup> August 2015 with the participation of Directors of Education and GCE A/L Science teachers numbering 44. Prof. S Hennayake (Acting Vice-Chancellor, University of Peradeniya), Prof. H M D Namal Priyantha (Director, PGIS), Prof. A Wickramasinghe (Dean, Faculty of Science), Dr. Sumedha Madawala (Chairperson, Board of Study in Science Education), Dr. W D Chandrasena (Coordinator of the M.Sc. programme) and Mr. M P Vipulasena (Director of Education, Science Branch, Ministry of Education) addressed the gathering at the inaugural session.



During the inauguration of M.Sc. Programme in Science Education - special batch, held on 10<sup>th</sup> August 2015

## 2<sup>nd</sup> Short Course on 'Teaching Methodologies in Science Education for Teachers in Grade 6 - 11 in Central Province'



During the inauguration of 2<sup>nd</sup> Short Course on 'Teaching Methodologies in Science Education' held on 25<sup>th</sup> September 2015

Science Education Alumni Association (SEAA), in collaboration with the Board of Study in Science Education, PGIS, and Education Department, Central Province, organized and conducted the above short course for science teachers of the Central Province. The short course was inaugurated on 25<sup>th</sup> September 2015 and the technical sessions were held from 15<sup>th</sup> December 2015 to 27<sup>th</sup> February 2016 at the PGIS for 60 secondary level science teachers. The objective of this course was to enhance the knowledge, skills and attitudes of teachers in teaching methodologies with special focus on teaching of science. The course was coordinated by Dr. Sakunthala Yati-gamma (University of Peradeniya) and Ms. D M M P Dissanayake (Provincial Department of Education, Kandy).



Participants of the Short Course during a technical session

## Students from the University of Copenhagen

Two students, Pia Andersen and Helen Jane Myrr Cund from the University of Copenhagen, Denmark visited PGIS during their 7-week internship from October to November 2015 as part of their Master's degree in Global Health. The focus of the internship was child health and nutrition, with particular emphasis on the tea plantation sector. The programme was coordinated and supervised by Prof. Thilde Rheinlander, Department of International Health, Immunology and Microbiology, University of Copenhagen, Denmark, and Prof. Samath Dharmaratne, Department of Community Medicine, University of Peradeniya.



# Recipients of Postgraduate Diplomas

(July - December 2015)

### Analytical Chemistry

Sareeha Nadarajah

### Applied Epidemiology

N Liyanagunawardena

### Applied Statistics

Y B M L W Yapa Bandara

M A N Gunaratne

K V C P Jayathilaka

M H G A Mapa

R M C N Rathnayake

A G S K Warnakulasooriya

H G S P Kumari

T J R Perera

### Computer Science

U A Jayakantha

H M R W Herath

J J Aruno

### Environmental Science

N P Kuruppuarachchi

N K C N Iwanthika

K D N Wijayarathna

A Arshad Ali

H D N Jayawickrama

### GIS & Remote Sensing

Arumappillai Pratheepan

### Industrial Chemistry

L Y U T Panangala

### Nanoscience and Nanotechnology

N M K S Nawarathna

### Science Education

Sellan Sivagaran

Subramaniam Sivanesarasan

M N L Abeyrathna

H G P R Jayaweera

S M J K Samarakoon

W M A D Wijekoon

N L C P Indika

# Recipients of Postgraduate Degrees

(July - December 2015)

## Master of Philosophy

### Chemical Sciences

D M D S Dissanayake

A G A W Alokanga

### Physics

K V L Amarasinghe

### Plant Sciences

Y A S Samithri

## Doctor of Philosophy

### Chemical Sciences

C S K Ranasinghe

W P S L Wijesinghe

### Earth Sciences

T B N S Madugalla

### Physics

J Akilavasan

### Plant Sciences

I D Singhalage

C S Hettiarachchi

# Master of Science

## Analytical Chemistry

R M C Rathnayaka  
K.A D U Pemasiri  
A M N K Adikari  
W S H K Jayawansa

## Applied Epidemiology

W A N D Wickramasinghe

## Clinical Biochemistry

K S Dayananda  
R M D Udayangani

## Computer Science

K B Abeyratne  
M L Jayawarna  
N R C U Narangoda  
U D M Pushpakumara  
Shanmugan Ilankeswaran  
Kanthasamy Sanmuganathan

## Disaster Management

J M H Kumara

## Environmental Science

P G I Thushari  
S M U A R Siriwardana  
P C T Karunarathna  
P N M P De Silva

## Experimental Biotechnology

W W R W M B K K Weerasooriya  
S S H M M L Senanayake  
T T Alawathugoda

## Gemmology and Industrial Minerals

G Wijesuriya  
K L D Dayasagara

## Industrial Chemistry

U L D I Kalana

## Nanoscience & Nanotechnology

L D C Nayanajith  
U C Wijesinghe  
I S Irshad  
B P Sisiranandana  
G G G M N Hemamali

## Physics of Materials

R I C N Karunarathne  
Arunakirinathan Anapayan

## Science Education

R M D K Rathnayaka  
S P C B Senadeera  
N B N De Alwis  
M A S R Dhanawansa  
C F Rodrigo  
Rev. M Chandrasiri Thero  
K L H Peiris

## PGIS News

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Prof. J P Edirisinghe  
Dr. A A S Perera  
Dr. R J K U Ranatunga  
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# PGIS

The Postgraduate Institute of Science (PGIS) is a national institution attached to the University of Peradeniya, Sri Lanka. The PGIS offers postgraduate training in various specialities in science. The academic programmes of the PGIS are conducted through ten Boards of Study:

- *Biochemistry and Molecular Biology*
- *Chemical Sciences*
- *Earth Sciences*
- *Environmental Science*
- *Mathematics*
- *Physics*
- *Plant Sciences*
- *Science Education*
- *Statistics and Computer Science*
- *Zoological Sciences*

In addition to the M.Sc., M.Phil. and Ph.D. programmes, the PGIS routinely conducts workshops, certificate courses and short-term training programmes, and offers consultancy services.

Academic staff members with postgraduate qualifications from world-recognized universities serve in the teaching staff of the PGIS. PGIS and the Faculty of Science provide excellent laboratory facilities to provide research training to students to face global challenges. Additionally, other science-based faculties of universities, research institutions and some industries also provide research training to PGIS students.

## Opportunities for a higher degree of your choice ...

- M.Sc. by course work (1 year) available for some programmes only
- M.Sc. by course work and research (1.5 years)
- M.Sc. by research (2 years) available for some programmes only
- M.Phil. by research (2 - 3 years)
- Ph.D. by research (3 - 4 years)

## M.Sc. DEGREE PROGRAMMES

At present, the PGIS offers M.Sc. degree programmes in the following specialized disciplines:

- *Analytical Chemistry*
- *Applied Epidemiology*
- *Applied Statistics*
- *Biodiversity, Ecotourism and Environment Management*
- *Clinical Biochemistry*
- *Computer Science*
- *Disaster Management*
- *Environmental Science*
- *Experimental Biotechnology*
- *Gemmology and Industrial Minerals*
- *GIS and Remote Sensing*
- *Industrial Mathematics*
- *Industrial Chemistry*
- *Medical Microbiology*
- *Medical Physics*
- *Nanoscience and Nanotechnology*
- *Pharmaceutical Botany*
- *Physics of Materials*
- *Plant Science*
- *Postharvest Technology of Fruits and Vegetables*
- *Science Education*
- *Water Resources Management*

All M.Sc. programmes consist of two semesters of course work. Most M.Sc. programmes are conducted on Fridays and weekends. The minimum requirement for registration for an M.Sc. degree programme is a B.Sc. degree in the relevant discipline from a recognized university or any other equivalent qualification.

Interested applicants are requested to visit the PGIS website <http://www.pgis.lk> for course contents and other details.

## M.PHIL./PH.D. RESEARCH DEGREE PROGRAMMES

The PGIS offers postgraduate research degree programmes leading to the Degrees of Master of Philosophy (M.Phil.) and Doctor of Philosophy (Ph.D.). Candidates registered for these degrees are required to engage in a research project under the guidance of a supervisor. The minimum requirement for registration for an M.Phil. or Ph.D. degree is either an M.Sc. degree or a B.Sc. degree in the relevant area of study from a recognized university or any other equivalent qualification. Research programmes are available for M.Phil./Ph.D. candidates under different Boards of Study.

**Occasional studentships** are available for those who wish to follow courses of choice and use other facilities over short periods without being registered for a postgraduate degree programme.

The PGIS welcomes applications from prospective students for M.Phil./Ph.D. (full-time or part-time) programmes. Please see the PGIS home page (<http://www.pgis.lk>) for more details and application forms.

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