SYMPOSIUM TO FELICITATE
INTERNATIONAL PROGRAMMES IN
PHYSICAL SCIENCES (IPPS), UPPSALA
UNIVERSITY, SWEDEN

Prof. Ernst van Groningen (Director, IPPS, Uppsala University, Sweden) addressing the inaugural session of the symposium held on 10th January 2011.
Seated (L to R): Prof. S H P P Karunaratne (Dean, Faculty of Science), Prof. B S B Karunaratne (Director, PGIS), Prof. Sarath Abeykoon (Vice-Chancellor, University of Peradeniya), Prof. Rohan Rajapakse (University Grants Commission), Prof. K R R Mahanama and Prof. S R D Rosa (University of Colombo) and Prof. B V R Chowdari (Asian Solid State Ionics Society, Singapore).

SAARC TRAINING PROGRAMME ON URBAN
RISK MANAGEMENT

Mrs. S Marina Mohamed (Secretary, Ministry of Disaster Management) addressing the inaugural session of the SAARC Training Programme on Urban Risk Management held on 30th October 2011.

INTERNATIONAL SYMPOSIUM ON
SUSTAINABLE USE OF WATER:
CHALLENGES AHEAD

Prof. B S B Karunaratne (Director, PGIS) addressing the inaugural session of the symposium held on 11th March 2011.
Seated (L to R): Dr. S K Weragoda (Symposium Co-coordinator), Prof. S R Kodituwakku (Acting Dean, Faculty of Science), Eng. K Hettiarachchi (Chairman, National Water Supply and Drainage Board), Prof. Tomonori Kawakami (Chairman, Department of Environmental Engineering, Toyama Prefectural University, Japan) and Dr. S K Yatigammana (Chairperson, Board of Study in Zoological Sciences and Symposium Co-coordinator).

INTERNATIONAL CONFERENCE ON
APPLIED EPIDEMIOLOGY

Inaugural session of the International Conference on Applied Epidemiology held on 3rd March 2011.
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PGIS News

Editorial Board
Prof. B S B Karunaratne (Chairman)
Prof. K Dahanayake
Prof. N S Kumar
Prof. J P Edirisinghe
Dr. A A S Perera
Dr. N C Bandara (Editor)

Comments, suggestions and contributions to improve the quality of this newsletter are invited. For information and requests for copies of PGIS News please contact:

Dr. N C Bandara (Editor)

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E-mail: ncbandara@pgis.lk
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<tr>
<th>M.Sc. Programme</th>
<th>Board of Study</th>
<th>Coordinator(s)</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical Chemistry</td>
<td>Chemical Sciences</td>
<td>Prof. H M D N Priyantha (Dept. of Chemistry, UPDN) Prof. M M A N Navaratne (Dept. of Chemistry, UPDN)</td>
<td>34</td>
</tr>
<tr>
<td>Biodiversity, Ecotourism and Environment Management</td>
<td>Environmental Science</td>
<td>Dr. S K Yatigammana (Dept. of Zoology, UPDN)</td>
<td>14</td>
</tr>
<tr>
<td>Clinical Biochemistry</td>
<td>Biochemistry and Mol. Biology</td>
<td>Prof. R Sivakanesan (Dept. of Biochemistry, UPDN) Dr. H K I Perera (Dept. of Biochemistry, UPDN)</td>
<td>10</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Statistics and Computer Sc.</td>
<td>Dr. A A I Perera (Dept. of Mathematics, UPDN)</td>
<td>56</td>
</tr>
<tr>
<td>Disaster Management</td>
<td>Earth Sciences</td>
<td>Dr. R L R Chandrajith (Dept. of Geology, UPDN) Dr. L C Kurukulasooriya (Dept. of Civil Engineering, UPDN) Prof. B S B Karunaratne (PGIS, UPDN)</td>
<td>16</td>
</tr>
<tr>
<td>Engineering Geology and Hydrogeology</td>
<td>Earth Sciences</td>
<td>Dr. H A Dharmagunawardhane (Dept. of Geology, UPDN) Dr. Jagath Gunatilake (Dept. of Geology, UPDN)</td>
<td>33</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>Environmental Science</td>
<td>Dr. R Fernando (Dept. Physics, Open University, Nawala)</td>
<td>28</td>
</tr>
<tr>
<td>Experimental Biotechnology</td>
<td>Biochemistry and Mol. Biology</td>
<td>Dr. P Samaraweera (Dept. of Molecular Biology and Biotechnology, UPDN) Prof. S Ranasinghe (Dept. of Biochemistry, UPDN)</td>
<td>25</td>
</tr>
<tr>
<td>GIS and Remote Sensing</td>
<td>Earth Sciences</td>
<td>Dr. Jagath Gunatilake (Dept. of Geology, UPDN)</td>
<td>35</td>
</tr>
<tr>
<td>Industrial Chemistry</td>
<td>Chemical Sciences</td>
<td>Dr. C S Kalpage (Dept. of Chemical Engineering, UPDN) Dr. W M A T Bandara (Dept. of Chemistry, UPDN)</td>
<td>10</td>
</tr>
<tr>
<td>Industrial Mathematics</td>
<td>Mathematics</td>
<td>Dr. W B Daundasekera (Dept. of Mathematics, UPDN)</td>
<td>10</td>
</tr>
</tbody>
</table>
Medical Physics
(February 5)
Physics
Dr. V Sivakumar (Dept. of Physics, UPDN)
Mr. A Dilip Kumara (Cancer Unit, Teaching Hospital, Karapitiya)

Nanoscience and Nanotechnology
(November 26)
Chemical Sciences
Prof. R M G Rajapakse (Dept. of Chemistry, UPDN)
Dr. V N Seneviratne (Dept. of Chemistry, UPDN)
Dr. R G S C Rajapakse (Dept. of Molecular Biology and Biotechnology, UPDN)

Physics of Materials
(November 18)
Physics
Dr. L R A K Bandara (Dept. of Physics, UPDN)

Science Education
(January 14)
Science Education
Dr. S Karunaratne (Science Education Unit, UPDN)
Dr. W A I P Karunaratne (Dept. of Zoology, UPDN)
Dr. C V Hettiarachchi (Dept. of Chemistry, UPDN)
Prof. B S B Karunaratne (PGIS, UPDN)
Dr. V A Seneviratne (Dept. of Physics, UPDN)

Water Resources Management
(November 19)
Earth Sciences
Dr. H A Dharmagunawardhane (Dept. of Geology, UPDN)

UPDN - University of Peradeniya

POSTGRADUATE DIPLOMA PROGRAMMES 2011/2012

Diploma Programme
(Date of Commencement) | Board of Study | Coordinator(s) |
<table>
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<tbody>
<tr>
<td>Information Technology (IT) (January 14)</td>
<td>Statistics and Computer Sc.</td>
<td>Prof. S Kodituwakku (Dept. of Statistics and Computer Science, UPDN)</td>
</tr>
<tr>
<td>Science Education (January 14)</td>
<td>Science Education</td>
<td>Dr. S Karunaratne (Science Education Unit, UPDN)</td>
</tr>
</tbody>
</table>

UPDN - University of Peradeniya

PUBLIC LECTURES

Title | Speaker and Affiliation | Date
---|---|---
Globalization of Higher Education and the implications for Smaller and Emerging Economies | Dr. Richard Navarro
Fulbright Scholar
Professor, College of Education and Integrative Studies
California State Polytechnic University, Pomona, USA | January 14
**Industrial risks in the light of the Japanese Nuclear Disaster**

Mr. Eric Glover  
French Scientific Journalist working for “Le Courier International”  
June 23

Organized in collaboration with the Alliance Francaise Foundation, Sri Lanka

**How molecular sequence data have changed understanding of fungal pathogens?**

Dr. Kevin Hyde  
Mushroom Research Center  
Chiang Mai, Thailand  
August 1

**Events at Fukushima Nuclear Plant: Implications**

Dr. Tatsujiro Suzuki  
Vice Chairman, Atomic Energy Commission, Japan  
September 6

Organized in collaboration with the Sri Lanka Pugwash Group

**Quality: To be on the Top or at the Tap?**

Mrs. Sakunthala Durairatnam  
Managing Director, Quality Solutions (Pvt.) Ltd., Sri Lanka  
December 16

Organized in collaboration with the Applied Sciences Society (APPS)

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### WORKSHOPS, SYMPOSIA AND SHORT COURSES

<table>
<thead>
<tr>
<th>Event</th>
<th>Coordinator(s) (Board of Study)</th>
<th>Date(s)</th>
<th>No. of Participants</th>
</tr>
</thead>
</table>
| Symposium to Felicitate the International Programmes in the Physical Sciences (IPPS), Uppsala University, Sweden | Prof. M A K L Dissanayake  
Prof. M A Careem (Physics) | January 10 - 11 | 41                  |
| 30th Short Course on GIS & Applications                                | Dr. Jagath Gunatilake (Earth Sciences)                      | February 7 - 12 | 28                  |
| 7th Advanced Short Course on GIS & Applications                        | Dr. Jagath Gunatilake (Earth Sciences)                      | February 28 - March 5 | 23                  |
| International Conference on Applied Epidemiology                      | Dr. Samath Dharmaratne  
Dr. Ranjan Wijesinghe (Zoological Sciences) | March 3 | 94                  |
| International Symposium on Sustainable use of Water: Challenges ahead | Dr. S K Yatigammana  
Dr. S K Weragoda (Zoological Sciences) | March 11 | 67                  |
<p>| 31st Short Course on GIS &amp; Applications                                | Dr. Jagath Gunatilake (Earth Sciences)                      | March 21 - 26   | 44                  |
| 32nd Short Course on GIS &amp; Applications                                | Dr. Jagath Gunatilake (Earth Sciences)                      | March 28 - April 2 | 38                  |
| 33rd Short Course on GIS &amp; Applications                                | Dr. Jagath Gunatilake (Earth Sciences)                      | April 18 - 23   | 23                  |</p>
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Instructor</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Short Course on Analysis of Experimental Data</td>
<td>Prof. Pushpa Wijekoon</td>
<td>April 25 - 27</td>
</tr>
<tr>
<td></td>
<td>(Statistics and Computer Science)</td>
<td></td>
</tr>
<tr>
<td>34th Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>April 25 - 30</td>
</tr>
<tr>
<td></td>
<td>(Earth Sciences)</td>
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<tr>
<td>Training Programme on Dairy Management for Gamaneguma Officers</td>
<td>Dr. Ashoka Dangolla</td>
<td>May 10 - 13</td>
</tr>
<tr>
<td></td>
<td>(Zoological Sciences)</td>
<td></td>
</tr>
<tr>
<td>8th Advanced Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>May 23 - 28</td>
</tr>
<tr>
<td></td>
<td>(Earth Sciences)</td>
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<tr>
<td>Workshop on Scientific Writing</td>
<td>Dr. N C Bandara</td>
<td>May 27</td>
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<td></td>
<td>(PGIS)</td>
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<tr>
<td>35th Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>May 30 - June 4</td>
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<tr>
<td></td>
<td>(Earth Sciences)</td>
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<tr>
<td>36th Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>June 1 - 6</td>
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<td></td>
<td>(Earth Sciences)</td>
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<tr>
<td>37th Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>June 13 - 18</td>
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<td></td>
<td>(Earth Sciences)</td>
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<tr>
<td>2nd Short Course on Analysis of Experimental Data</td>
<td>Prof. Pushpa Wijekoon</td>
<td>August 1 - 3</td>
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<tr>
<td></td>
<td>(Statistics and Computer Science)</td>
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<tr>
<td>6th Short Course on Health and Anesthesia in Captive Elephants</td>
<td>Dr. Ashoka Dangolla</td>
<td>August 6</td>
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<tr>
<td></td>
<td>(Zoological Sciences)</td>
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<tr>
<td>3rd Short Course on Analysis of Experimental Data</td>
<td>Prof. Pushpa Wijekoon</td>
<td>August 15 - 17</td>
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<tr>
<td></td>
<td>(Statistics and Computer Science)</td>
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<tr>
<td>38th Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>August 22 - 27</td>
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<tr>
<td></td>
<td>(Earth Sciences)</td>
<td></td>
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<tr>
<td>9th Advanced Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>August 29 - September 3</td>
</tr>
<tr>
<td></td>
<td>(Earth Sciences)</td>
<td></td>
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<tr>
<td>Workshop on Human Growth and Maturation - Clinical Applications</td>
<td>Prof. J G S Ranasinghe &amp; Dr. Rasnayake M Mudiyanse</td>
<td>September 2</td>
</tr>
<tr>
<td></td>
<td>(Biochemistry and Molecular Biology)</td>
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<tr>
<td>Workshop on Scientific Writing</td>
<td>Dr. N C Bandara</td>
<td>September 23</td>
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<tr>
<td></td>
<td>(PGIS)</td>
<td></td>
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<tr>
<td>SAARC Training Programme on Urban Risk Management</td>
<td>Dr. Jagath Gunatilake</td>
<td>October 30 - November 3</td>
</tr>
<tr>
<td></td>
<td>(Earth Sciences)</td>
<td></td>
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<tr>
<td>Workshop on Electrochemistry</td>
<td>Prof. M M A N Navaratne &amp; Dr. V A Seneviratne</td>
<td>November 3</td>
</tr>
<tr>
<td></td>
<td>(Chemical Sciences &amp; Physics)</td>
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<tr>
<td>39th Short Course on GIS &amp; Applications</td>
<td>Dr. Jagath Gunatilake</td>
<td>November 7 - 12</td>
</tr>
<tr>
<td></td>
<td>(Earth Sciences)</td>
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</tbody>
</table>
40th Short Course on GIS & Applications
Dr. Jagath Gunatilake (Earth Sciences) November 21 - 26 22

41st Short Course on GIS & Applications
Dr. Jagath Gunatilake (Earth Sciences) November 21 - 26 25

Peradeniya University Research Sessions (PURSE) - 2011
November 24 21 (PGIS students)

Ph.D. and M.Phil. DEGREES AWARDED

Awardees Titles of Theses

Ph.D. – Chemical Sciences
1. K G N P Piyasena
   Place of Research Work: Institute of Fundamental Studies, Kandy
   Supervisor: Prof. H R W Dharmaratne
   Titles of Theses
   Allopathic activity studies of Sri Lankan flora and chemical investigation of endophytic fungi and terrestrial Streptomyces species

2. D A S Siriwardhana
   Place of Research Work: Postgraduate Institute of Science, University of Peradeniya
   Supervisors: Dr. R Samarasekara, Prof. V Karunaratne and Dr. O V D S J Weerasena
   Titles of Theses
   Microbial insecticides from Bacillus thuringiensis and fungal metabolites from Hirsutella thompsonii

Ph.D. – Earth Sciences
1. W L D R A Kumaratilake
   Place of Research Work: Postgraduate institute of Science, University of Peradeniya
   Supervisors: Dr. S W Navaratne and Prof. P G R Dharmaratne
   Titles of Theses
   A classification method for optical phenomena of cat’s-eyes and stars in minerals

Ph.D. – Plant Sciences
1. R H S S Fernando
   Place of Research Work: Department of Botany, University of Peradeniya
   Supervisors: Prof. I A U N Gunatilleke, Dr. C N B Bambaradeniya and Prof. K B Ranawana
   Titles of Theses
   Biodiversity of ecological communities and the biogeography of their species in three isolated hills in Sri Lanka

M.Phil. – Biochemistry & Molecular Biology
1. H M P S Kumari
   Place of Research Work: Department of Biochemistry, University of Peradeniya
   Supervisors: Dr. S B P Athauda and Prof. P A J Perera
   Titles of Theses
   Isolation, partial purification and characterization of inhibitors for aspartic proteinases from Spondias pinnata
2. D M Nanayakkara
   Place of Research Work: Postgraduate Institute of Science, University of Peradeniya
   Supervisors: Prof. R P V J Rajapakse, Prof. S A M Kularathne and Dr. G A Dasch
   Serological detection and identification of rickettsial species infecting humans

3. W A I T Fernando
   Place of Research Work: Institute of Fundamental Studies, Kandy
   Supervisors: Prof. R P V J Rajapakse and Prof. H R W Dharmaratne
   Studies on anthelmintic efficacy of medicinal plants against gastrointestinal nematodes of goats

M.Phil. – Chemical Sciences

1. A M K S P Adhikari
   Place of Research Work: Department of Chemistry, University of Peradeniya
   Supervisor: Dr. M Y Udugala-Ganehene
   Synthesis of N,N’-ethylenebis(acetylacetoneiminato) and dithiooxamido transition metal complexes and investigation of their potential for binding anion, cation and small molecules

M.Phil. – Earth Sciences

1. P Hettiatachchi
   Place of Research Work: Postgraduate Institute of Science, University of Peradeniya
   Supervisors: Dr. H M T G A Pitaawala and Mr. J T S Motha
   Applications of red clays of Sri Lanka for high quality ceramic products

2. R M K G S P B Koswatte
   Place of Research Work: Postgraduate Institute of Science, University of Peradeniya
   Supervisors: Dr. A A J K Gunatilake and Prof. Dileeka Dias
   Application of Spatial Data Infrastructure Technology and Mobile GIS for disaster management in Sri Lanka

M.Phil. – Plant Sciences

1. C M C P Chandrasekara
   Place of Research Work: Department of Botany, University of Peradeniya
   Supervisors: Dr. H M S P Madawala Weerasinghe, Prof. C V S Gunatilleke, Prof. I A U N Gunatilleke and Prof. G Seneviratne
   Effect of soil-related factors on habitat specialization in the 25 ha forest dynamics plot at Sinharaja rain forest, Sri Lanka

2. H A S Weerasinghe
   Place of Research Work: Institute of Fundamental Studies, Kandy
   Supervisors: Dr. M C M Iqbal, Dr. G W A R Fernando and Dr. H M S P Madawala Weerasinghe
   Edaphic Characteristics at the Ussangoda Serpentinite Deposit

M.Phil. – Zoology

1. K Tililekaratne
   Place of Research Work: Department of Zoology, University of Peradeniya
   Supervisors: Prof. J P Edirisinghe, Prof. C V S Gunatilleke and Dr. W A I P Karunaratne
   Taxonomy, distribution and host plant relationships of thrips in selected sites in Sri Lanka
PGIS ACTIVITIES IN FOCUS

SYMPOSIUM TO FELICITATE THE INTERNATIONAL PROGRAMMES IN THE PHYSICAL SCIENCES (IPPS), UPPSALA UNIVERSITY, SWEDEN

Left: Inaugural session of the IPPS Symposium held on 10th January 2011 at the PGIS auditorium. Right: Prof. Sarath Abeykoon (Vice-Chancellor, University of Peradeniya) awarding a memento to Prof. Steen Skaarup in appreciation of his services towards IPPS. The Symposium Co-coordinators, Professors Lakshman Dissanayake and M A Careem are also in the picture.

SHORT COURSES ON GIS AND APPLICATIONS

Participants of the 30th Short Course (7th to 12th February) at a technical session

Lighting the Traditional Oil Lamp at the inauguration of the 31st Short Course (21st to 26th March)

Left: Participants of the 32nd Short Course (28th March to 2nd April). Right: Participants of the 34th Short Course (25th to 30th April) during a technical session
SHORT COURSES ON GIS AND APPLICATIONS

Participants of the 37th Short Course (13th to 18th June) at a field class

Participants of the 39th Short Course (7th to 12th November) at a technical session

ADVANCED SHORT COURSES ON GIS AND APPLICATIONS

Participants of the 7th Advanced Short Course (28th February to 5th March)

Participants of the 9th Advanced Short Course (29th August to 3rd September) at a field class

INTERNATIONAL CONFERENCE ON APPLIED EPIDEMIOLOGY

Left: Dr. Sudharm Yatigammana (Chairperson, Board of Study in Zoological Sciences & Conference Co-coordinator) at the inauguration held on 3rd March 2011. Seated L to R: Dr. Samath Dharmarathne (Conference Co-coordinator), Prof. S H P P Karunaratne (Dean, Faculty of Science), Prof. B S B Karunaratne (Director, PGIS), Dr. Paba Palihawadana (Chief Epidemiologist, Ministry of Health) and Dr. A D N Chandrasiri (Director General, DAPH & Project Director, AIPRP).

Right: Lighting the traditional oil lamp during the inauguration of the conference.
INTERNATIONAL SYMPOSIUM ON SUSTAINABLE USE OF WATER: CHALLENGES AHEAD

Left: Lighting the traditional oil lamp during the inaugural session held on 11th March 2011. Center: Prof. Tomonori Kawakami (Chairman, Department of Environmental Engineering, Toyama Prefectural University, Japan) addressing the participants at the Inaugural Session.

SHORT COURSES ON ANALYSIS OF EXPERIMENTAL DATA

Technical sessions of the Short Courses on Analysis of Experimental Data held at the Computer Unit of the PGIS

TRAINING PROGRAMME ON DAIRY MANAGEMENT FOR GAMANEGUMA OFFICERS

Left: Dr. Ashoka Dangolla (Training Programme Coordinator) addressing the inaugural session held on 10th May 2011 at the PGIS. Right: A technical session of the training programme in progress.
WORKSHOP ON HUMAN GROWTH AND MATURATION - CLINICAL APPLICATIONS

Participants at a technical session of the workshop

SAARC TRAINING PROGRAMME ON URBAN RISK MANAGEMENT

Left: Lighting the traditional oil lamp at the inaugural session held on 30th October 2011 in the new building of the PGIS. Right: A technical session in progress.

WORKSHOP ON ELECTROCHEMISTRY

Mr. Luca Pini of Metrohm Autolab B.V., Netherlands addressing the participants during a technical session
**M.Sc. DEGREES AWARDED**

**Awardees**

**Titles of Project Reports**

**M.Sc. – Analytical Chemistry**

1. A J M A K A Jayasekara
   - Investigation of sorption of Methylene Blue (MB) dye on thermally treated brick clay particles

2. K N B B M A T Niriella
   - Interaction of phosphates with brick clay particles for water and wastewater treatment

3. P D T Rodrigo
   - Investigation on the natural water coagulant, *Strychnos potatorum* (“Ingini”) seed powder for drinking water treatment

4. S T Gonapinuwala
   - An evaluation of the presence of some selected metals in commercial bottled drinking water in Sri Lanka

5. V V Uduwage
   - Preliminary study on the decay of the inner surface of concrete in alum treated water storage tanks

6. U G C R Wimalasena
   - Pesticide residue analysis in Sri Lankan made tea

**M.Sc. – Applied Statistics**

1. M P Wickramasinghe
   - Statistical analysis of total solar radiation in Colombo, Sri Lanka

2. N Viknesh
   - Forecasting Sri Lankan black tea prices

3. T Balachandran
   - Analysis of prevalence of dengue fever in Vavuniya MOH division

4. H G K Dineshanrathna
   - Improving the production efficiency in Hirdaramani (Industries) Limited at Kahathuduwa using statistical process control

5. M M J D Maheepala
   - Forecasting currency in circulation in Sri Lanka

6. H A N S Hewavitharana
   - A non-linear model for stream-flow prediction in the Kalu river upper catchment in Sri Lanka

7. C Paranirupanathan
   - A study of inflation in Sri Lanka using new Colombo consumer’s price index compared to the old Colombo consumer’s price index

8. A M E K Abeyakoon
   - Comparison between conventional clustering methods using *Abelmoschus esculentus* (L.) Moench (Okra)

9. R P Senadeera
   - Modeling and forecasting of wind direction and wind speed in selected weather stations

**M.Sc. – Biodiversity Ecotourism and Environment Management**

1. W G N B P Dayananda
   - Situation analysis and development strategies for elephant orphanage at Pinnawala

2. W M S R Wijesundara
   - Water distribution systems and diarrheal disease transmission: A case study in Kegalle district

3. M U I Wijethunga
   - A comparative study on avifauna associated with two selected seasonal reservoirs at Kurunegala district
**M.Sc. – Clinical Biochemistry**

1. H H Peiris  
   Assessment of the effects of selected pre-analytical and analytical factors on the optimal immunohistochemical staining for ER and Her-2 in breast cancer

**M.Sc. – Computer Science**

1. R M T G J Bandara  
   Design and implementation of a web-based Humanitarian Aid Coordinating System
2. J P N S T Jayaweera  
   Design and development of an endemic fresh water fish identifying system
3. S J Withanarachchi  
   Web based evaluation system for Department of Technical Education and Training
4. P R R W M I K Abhayasinghe  
   Regulatory framework for Near Field Communication (NFC) based mobile payments in Sri Lanka
5. S Sureshkumar  
   Semi-automatic online examination system with SMS notification for essay and structured type questions
6. S M S Piyaratna  
   Fingerprint matching based crime detection system
7. H D A W Halkewidana  
   Online orientation system for the Open University of Sri Lanka
8. S L Gunasena  
   Neural network based reverse engineering approach to recognize printed Sinhala scripts
9. P C Abeysiriwardana  
   Ontology based information extraction for Disease Intelligence

**M.Sc. – Disaster Management**

1. H F C P Fonseka  
   An assessment of disaster and emergency preparedness level in the primary health care centers in IDP villages, Menik Farm, Vavunia district, Sri Lanka
2. P P Jayalath  
   Evaluating the impact of capture and translocation of trouble making Toque monkey (*Macaca sinica*) troops in Mahakanda village, as a tool of mitigating the human-macaque conflict
3. R R M Hasitha  
   Study of temporal and spatial variability of dry spells in dry zone in Sri Lanka
4. P P B P Perera  
   Social and psychological effects impacted upon the widows of military (army) personnel who died in active duty in the ethnic crisis of Sri Lanka
5. A M R Bandara  
   Distribution of stray dogs and their antirabies vaccination status in Hanthana residence area in Kandy

**M.Sc. – Engineering Geology and Hydrogeology**

1. T M Kumara  
   Enhance the mechanical strength of bricks and construction materials

**M.Sc. – Environmental Science**

1. P M D Jayaneththi  
   Survey on the disposal of healthcare waste in the Colombo district and a proposal for improving the disposal mechanism
2. S M S Samarakoon  
   Development of a water quality index to monitor stream water quality: Case study of the Mahaoya basin, Sri Lanka
3. M P M Irzadh  
   Estimating fluoride exposure in rural communities in Sri Lanka - A case study from Irakamam village in Ampara district
5. H A N D Piyatunga Chemical characterization of road dust in greater Colombo area
6. E M D S Senavirathne Methodology to remove colour from textile waste water effluent
7. P Dewasurendra Bird diversity in Kumana marsh in the Kumana National Park, Sri Lanka
8. S Ethayakanthan Performance evaluation of clay-polyethylene-clay composite biofilm liner for landfill in the dry zone of Sri Lanka
9. T Shripathy Evaluation of mass and energy balances of Landfill Bioreactor “Test Cell” at Peradeniya
10. K H D M Karunarathna Crop damages by Asian elephants in Ekgaloya and Dewalahinda areas in Ampara district, Eastern Province, Sri Lanka
11. P V J Fernando Application of floating wetlands for water quality improvement
12. R S A K Bandara The performance of sub surface vertical and horizontal flow constructed wetlands with special reference to Sri Lanka
13. B P A Jayawardana Removal of high concentrations of iron in water by electrocoagulation and filtering system: a new technique for domestic uses

**M.Sc. – Experimental Biotechnology**

1. P U Abeywickrama Callus induction, plant regeneration and *Agrobacterium*-mediated transformation of rice variety Bg-250
2. I M W Gunasekara Molecular characterization of human cytomegalovirus (HCMV) in some HCMV infected renal transplant patients in Sri Lanka
3. A S Manamperi Screening, isolation and purification of potential antiparasitic compounds from medicinal plants

**M.Sc. – Gemmology and Industrial Minerals**

1. B G R W Gamlath Exploring conversion of perthite to moonstone by heat treatment

**M.Sc. – GIS & RS**

1. K N I Kavirathna GIS based model for potential locations of mini hydropower projects
2. A S Premasundara Assessing spatial and social vulnerability for natural and other hazards in the Ampara district of Sri Lanka
3. E D Sooriyawansa Flood risk and vulnerability assessment along Kelani river in Biyagama
4. R P S Ranaweera GIS for land use zoning in urban development plans case study: Hambanthota municipal council area
5. P S Jayaweera Risk analysis and inundation mapping along Nilwala river basin

**M.Sc. – Industrial Chemistry**

1. H A J R Hetti Arachchi Improving the quality of cement manufacturing process by using statistical techniques
2. P M G M Gnanarathna Feasibility study of bio-diesel production from locally available non-edible oils
M.Sc. – Industrial Mathematics
1. S Mayuiran Optimizing the inventory cost of carbon dust
2. T Ealasukanthan Approximate first integrals of perturbed ordinary differential equations

M.Sc. – Medical Microbiology
1. P W G J Rathnakumari Application of PCR to early detection of dengue fever in clinically suspected patients
2. V Thanaraj Anti-candidal activity of some plants in the eastern region of Sri Lanka

M.Sc. – Medical Physics
1. Shilpa Singh Construction of some quality control test tools to evaluate medical diagnostic X-ray machines
2. D Rajaratnam Dosimetric and clinical characteristics of Multi-Leaf Collimator in Radiation Therapy

M.Sc. – Nanoscience & Nanotechnology
1. A M A Zajid Self-cleaning cellulose fabric with TiO₂ nano particles
2. W M K T Wijeratne Thermal degradation behavior of clay polymer nanocomposites
3. L S Hewawarawita Preparation, characterization and in-vitro release study of ascorbic acid-encapsulated liquid crystal liposomes
4. H M U G A Bandara Fabrication of dye-sensitized solid-state solar cells: use of triethylamine hydrothiocyanate as crystal growth inhibitor

M.Sc. – Physics of Materials
1. K B K Sanjeewa Effect of gypsum on the compressive strength of cement
2. A R M P S Rathnayake Mechanical properties of Mullite/Zirconia composite with ferric oxide and yttrium oxide additives
3. F A E Nugera Effect of alumina filler on spherulite growth and on ionic conductivity of PEO₉(LiClO₄) and Al₂O₃ composite polymer electrolyte

M.Sc. – Plant Sciences
1. M I M Fahumy Effect of bee honey treatment on controlling the lipid level of hyperlipidaemia patients
2. P K B Lakmali Growth and persistence of biofilmed biofertilizers in liquid media as influenced by pH
3. R M G K Rathnayake Some factors affecting the postharvest longevity of blue water lily (Nymphaea sp.) flowers
4. A Manoraj Antimicrobial activity of Triphala - a traditional medicine formulation
M.Sc. – Science Education

1. W I G Ratnayake  
   A study on relevance of G.C.E. (Ordinary Level) mathematics examination paper for the Sri Lankan educational needs

2. S S J M Iqbal  
   A critical analysis on ancient numerals

3. M D A Gunasekara  
   The influence of language factor on student performance on solving word problems among bilingual learners in junior secondary level

4. N Sivanesharajah  
   Self-study guide for enhancing performance of straightline motion and force among weaker students in grade 10 physics

5. S Kandeepan  
   Learning difficulties of G.C.E. (A/L) combined mathematics students in Newton’s laws of motion

6. S N K K Tennakoon  
   An analysis of misconceptions in electricity among G.C.E.(A/L) students

7. D J G S Dissanayaka  
   Revision of G.C.E.(A/L) electronic curriculum to suit the requirement of modern industry

8. M M Muzammil  
   Suggestions for overcoming the learning difficulties of grade ten students in the chemistry unit one

9. A R Ariyasinghe  
   Development of demonstration experiment and computer based test to teach rotational and circular motion

10. A M S W Abeysinghe  
    A study to investigate the reasons for low interest in the area of probability and statistics in GCE (A/L) combined mathematics students in Kurunegala district

11. T Ramesh  
    Preparation of a supplementary guide for the beginners of advanced level chemistry (Unit 1.3 and 1.4 – old syllabus)

12. A V C Salgado  
    Differential effects achieved genderwise in teaching chemistry using macroscopic method

13. A S V Polgampola  
    Bilingual education in Sri Lanka: Perspectives of stakeholders with special reference to prospective teaching in science education

14. R A N P Rupasinghe  
    An investigation on the quality of mathematics textbooks

15. K K V S Kankanamge  
    The impact of teacher qualities on mathematics performance of junior secondary level students

16. H Vageesan  
    Assessing GCE (A/L) biology students’ understanding of environmental issues using a two-tier diagnostic test

17. M M Sakalasuriya  
    Preparation of an activity book using Active Learning Method (ALM) to teach basic principles of ecology

18. S K M A Khan  
    Assessment of a modified approach to teach the unit of the GCE (O/L) syllabus on ‘Prevention of diseases associated with the human body’

19. Y Kettheeswaran  
    Students’ learning ability of calculus in the GCE (Advanced Level) Combined Mathematics syllabus

20. P Thangarajah  
    Improve the learning skills of students on “Water Quality” in GCE (A/L) Chemistry syllabus

M.Sc. – Water Resource Management

1. K K Sugathadasa  
   Impact of wetland filling in urban areas on flood detention capacity; case study from Muthurajawela marsh

2. I G C I Kularathne  
   Groundwater condition in Monaragala district
## POSTGRADUATE DIPLOMAS AWARDED

### Analytical Chemistry
1. I M N Fernando
2. R K N I Ratnayake

### Applied Statistics
1. J Thangavadivel
2. K M I P B Pamunuwa
3. A S Abeygunarathne
4. I P N Ilangakoon
5. M N M Nawfan

### Computer Science
1. T Kaneshalingam
2. G A T N Ariyaratne
3. P D L Binduhewa
4. N T Hanusiyan
5. D W M B P Vidurupola

### Environmental Science
1. G M N D Bandara
2. G R N D Wijerathne
3. T S Abeysekera
4. P Navaneeth
5. H S K J Bandara
6. K A K W Jayasekara
7. M Mercy

### Experimental Biotechnology
1. W A P G Weeraratne

### Gemology & Industrial Minerals
1. W S D Epa

### GIS & RS
1. S Rajasekaram
2. N Thusyanthan
3. R M S B Ratnayake

### Industrial Mathematics
1. A N M Athukorala
2. D R A Samaranayake

### IT
1. A A N A K Navaratne
2. R M A I Ratnayake

### Medical Microbiology
1. H M Faizal

### Medical Physics
1. M W A C M Wijesooriya
2. H M R Perera

### Physics of Materials
1. U S Rahubadde
2. C M Isham

### Plant Sciences
1. M L Gunasekara
2. I S Kariyawasam

### Postharvest Technology of Fruits and Vegetables
1. R K R M N Gunasena
2. K D A H R Dassanayake

### Science Education
1. M M Dillimuni
2. A A S Attanayaka
3. M Raveenthiran
4. C M Y A Chandrasekara
5. P Sritharan
6. E M S K Ekanayake
7. R Pushparatnam
8. S Thirikaran
9. R M C E K Rajapakse

### Water Resources Management
1. T Muhunthan
MSc PROGRAMMES 2011/2012 - INAUGURAL SESSIONS

Left: Prof. B S B Karunaratne (Director, PGIS) addressing the participants of the inaugural session held on 14th January 2011.
Right: Lighting the traditional oil lamp during the inaugural session held on 4th November 2011.

Left: Participants of the inaugural session held on 4th November 2011 (morning session). Right: Prof. B S B Karunaratne (Director, PGIS) addressing the participants.
Seated L to R: Dr. N C Bandara (Programme Coordinator, PGIS), Prof. S R Kodituwakku (Chairman, Board of Study in Statistics and Computer Science), Prof. S H P P Karunaratne (Dean, Faculty of Science), Prof. B M R Bandara (Chairman, Board of Study in Chemical Sciences) and Dr. V Sivakumar (Chairman, Board of Study in Physics).

Inaugural session held on 4th November 2011 (afternoon session).
Seated L to R: Prof. H M D N Priyantha (Chairman, Board of Study in Environmental Science), Prof. R Sivakanesan (Chairman, Board of Study in Biochemistry and Molecular Biology), Prof. B S B Karunaratne (Director, PGIS), Prof. S H P P Karunaratne (Dean, Faculty of Science), Dr. Jagath Gunatilake (Chairman, Board of Study in Earth Sciences) and Dr. S K Yatigammana (Chairperson, Board of Study in Zoological Sciences).