



PGIS News

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University of Peradeniya, Sri Lanka

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WORKSHOP ON 'EXPLORING OPPORTUNITIES IN NANOSCIENCE AND NANOTECHNOLOGY (NANOTECH-2008)'



Inaugural Session of NANOTECH-2008 held at Hotel Topaz, Kandy on 2nd June 2008. Seated (L to R): Prof. M A K L Dissanayake (Director, PGIS), Prof. H Abeygunawardhane (Vice-Chancellor, University of Peradeniya), Prof. Tissa Vitarana (Hon. Minister of Science and Technology), Eng. Ranjith Gunawardhane (President, Institute of Engineers, Sri Lanka), Prof. R M G Rajapakse and Dr. D H S Maithripala (Joint Workshop Coordinators).

The NANOTECH 2008 was conducted from 2nd to 6th June 2008 at Hotel Topaz, Kandy. PGIS, University of Peradeniya and Institute of Engineers, Sri Lanka (IESL) - TECHNO 2008 Secretariat in collaboration with the National Science Foundation (NSF) and Faculties of Science & Engineering, University of Peradeniya, jointly organized the workshop. Prof. Tissa Vitarana, Hon. Minister of Science and Technology was the Chief Guest at the inauguration held on 2nd June 2008 at Hotel Topaz. The objectives of the workshop were to: (i) provide a forum for the technologists and scientists to interact and create an awareness on new developments and (ii) search ways and means of harnessing expertise of researchers and engineers to assist in the country's economic development.

There were 43 participants and 30 resource persons. The workshop hosted three plenary lectures and 32 other presentations. The plenary lectures were on: (i) 'Harnessing nanotechnology for national development' by Prof. Ravi Silva, Director, Advanced Technology Institute, University of Surrey, UK, (ii) 'An overview of research and development in MEMs and NEMs' by Prof. Jordan M Berg, Associate Director, Nanotech Centre, Texas Tech University, USA, and (iii) 'Expectations of key globally competitive manufacturing industries of Sri Lanka and the

opportunities that await nanoscience and nanotechnology to enhance such competitiveness' by Mr. Mevan Peiris, Director, Institute of Chemistry, Ceylon.

Other sessions were focussed on MEMS and NEMS, solar cells, hydrogen fuel cells, energy storage devices, synthesis of nanocomposites and nanoparticles, use of TiO₂ nanoparticles in a commercially viable way, water treatment, environmental management, soil management, food security etc.

At the end of the workshop the following were emphasized: (i) need for collaboration between scientists of different disciplines; (ii) necessity of a dialogue between industry, engineers and scientists involved in fundamental research to translate findings into technology. A follow-up meeting was held on 21st June 2008 at the University of Peradeniya to felicitate the resource persons and to discuss the possibilities of focussing on selected projects on nanotechnology to be developed for commercialization. Mr. A N R Amaratunga, Secretary to the Ministry of Science & Technology was also present at the meeting.



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CONTENTS

| | |
|---|----|
| <i>Training Workshop on Exploring Opportunities in Nanoscience & Nanotechnology</i> | 1 |
| <i>M.Sc. Degree Programmes & Postgraduate Diploma Programmes (2008)</i> | 3 |
| <i>Public Lectures</i> | 4 |
| <i>Workshops (WS), Seminars (S) & Short Courses (SC) conducted</i> | 5 |
| <i>Reports of Coordinator(s) of WS, S & SC</i> | 6 |
| <i>PGIS Activities in Focus ...</i> | 9 |
| <i>Ph.D., M.Phil., M.Sc. Degrees and Postgraduate Diplomas Awarded in 2008</i> | 11 |

PGIS News

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Prof. B S B Karunaratne

Prof. B S B Karunaratne, Professor of Physics at the University of Peradeniya assumed duties as the new Director of the PGIS on 18th August 2008.

The former Director, Prof. M A K L Dissanayake, Senior Professor of Physics, served the PGIS for five years from 1st July 2003 to 30th June 2008. We appreciate his valuable contributions towards the progress of the PGIS during this period.



Prof. M A K L Dissanayake

ERROR

M.Sc. DEGREE PROGRAMMES AND POSTGRADUATE DIPLOMA PROGRAMMES (2008)

| M.Sc. Programme (Date of Commencement) | Board of Study | Coordinator(s) | No. of Students |
|---|-----------------------------|--|------------------------|
| Industrial Mathematics (May 9) | Mathematics | Dr. W B Daundasekera (Dept. of Mathematics, UPDN) | 15 |
| Medical Microbiology (May 9) | Plant Sciences | Dr. C L Abayasekara (Dept. of Botany, UPDN) Prof. V Thevanesam (Dept. of Microbiology, UPDN) | 15 |
| Medical Physics (May 9) | Physics | Dr. V Sivakumar (Dept. of Physics, UPDN) Dr. B Hewawitharana (Dept. of Medicine, UPDN) Dr. S Kulatunga (Dept. of Nuclear Medicine, University of Colombo) Mr. A H Dilip Kumara (Cancer Unit, Teaching Hospital, Karapitiya) | 11 |
| Physics of Materials (May 9) | Physics | Dr. P Ekanayake (Dept. of Physics, UPDN) | 13 |
| Nanoscience and Nanotechnology (New Programme) (July 26) | Chemical Sciences | Prof. R M G Rajapakse (Dept. of Chemistry, UPDN) Dr. L R A K Bandara (Dept. of Physics, UPDN) Dr. V N Seneviratne (Dept. of Chemistry, UPDN) | 27 |
| Biodiversity, Ecotourism & Environment Management (Aug. 23) | Environmental Science | Dr. S Yatigammana (Dept. of Zoology, UPDN) Dr. A Perera (Dept. of Botany, UPDN) | 15 |
| Clinical Biochemistry (Aug. 23) | Biochemistry & Mol. Biology | Prof. R Sivakanesan (Dept. of Biochemistry, UPDN) Dr. P H P Fernando (Dept. of Biochemistry, UPDN) | 10 |
| Experimental Biotechnology (Aug. 23) | Biochemistry & Mol. Biology | Dr. P Samaraweera (Dept. of Molecular Biology & Biotechnology, UPDN) Dr. S Ranasinghe (Dept. of Biochemistry, UPDN) | 19 |
| Analytical Chemistry (Nov. 22) | Chemical Sciences | Prof. H M D N Priyantha (Dept. of Chemistry, UPDN) Dr. A Nawaratne (Dept. of Chemistry, UPDN) | 18 |
| Applied Statistics (Nov. 22) | Statistics & Computer Sc. | Dr. K Perera (Dept. of Engineering Mathematics, UPDN) | 32 |
| Computer Science (Nov. 22) | Statistics & Computer Sc. | Dr. A A I Perera (Dept. of Mathematics, UPDN) | 52 |
| Environmental Science (Nov. 22) | Environmental Science | Prof. K H G M de Silva (Dept. of Zoology, UPDN) Dr. R Fernando (Dept. Physics, Open University, Nawala) | 18 |
| Industrial Chemistry | Chemical Sciences | Dr. M Y U Ganehenega (Dept. of Chemistry, UPDN) Dr. D G G P Karunaratne (Dept. of Chem. Engineering, | 11 |

| | | | |
|---|------------------------------|---|----|
| (Nov. 22) | | UPDN) | |
| Science Education (Nov. 22) | Science Education | Prof. A D L C Perera (Dept. of Chemistry, UPDN) Dr. P Saravanakumar (Dept. of Botany, UPDN) Dr. C Vithana (Dept. of Chemistry, UPDN) Prof. U N B Dissanyake (Dept. of Mathematics, UPDN) Dr. V Seneviratne (Dept. of Physics, UPDN) | 24 |
| Water Resources Management (Nov. 22) | Earth Sciences | Dr. H A Dharmagunawardhane (Dept. of Geology, UPDN) | 8 |
| POSTGRADUATE DIPLOMA PROGRAMMES | | | |
| Information Technology (IT) (Aug. 23) | Statistics & Computer Sc. | Dr. S Kodituwakku (Dept. of Statistics & Computer Science, UPDN) | 10 |
| Science Education (Nov. 22) | Science Education | Dr. C Vithana (Dept. of Chemistry, UPDN) Dr. V Seneviratne (Dept. of Physics, UPDN) | 31 |

UPDN ≡ University of Peradeniya

PUBLIC LECTURES

| <i>Title</i> | <i>Speaker & Affiliation</i> | <i>Date</i> |
|---|--|-------------------|
| <i>What is Education? What is a University?</i> | <i>Emeritus Professor S. N. Arseculeratne Faculty of Medicine University of Peradeniya</i> | <i>June 3</i> |
| <i>Modern Trends in Science Education</i> | <i>Professor J. S. H. Q. Perera Associate Professor of Chemical Education Sultan Hassanal Bolkiah Institute of Education Universiti Brunei, Darussalam</i> | <i>July 14</i> |
| <i>Why Nuclear Disarmament Matters for Sri Lanka?</i> | <i>Mr. Jayantha Dhanapala President, Pugwash Conferences on Science & World Affairs and Former Under-Secretary-General, United Nations for Disarmament Affairs</i> | <i>November 4</i> |
| <i>The Sri Lanka Pugwash Group in association with the PGIS, University of Peradeniya presented the above Talk to commemorate in Sri Lanka the 100th Birth Anniversary of the late Sir Joseph Rotblat, Nuclear Physicist and Co-recipient 1995 Nobel Peace Prize and Former President, Pugwash Conferences on Science & World Affairs.</i> | | |
| <i>Facts and Speculations in Cosmology</i> | <i>Professor Jayant Narlikar Inter-University Centre for Astronomy and Astrophysics Ganeshkhind, Pune, INDIA</i> | <i>December 5</i> |

WORKSHOPS, SEMINARS & SHORT COURSES

| <i>Event</i> <i>Workshop (WS), Seminar (S) & Short Course (SC)</i> | <i>Coordinator(s)</i> <i>(Board of Study)</i> | <i>Date(s)</i> | <i>No. of Participants</i> |
|--|--|----------------|----------------------------|
| 11 th Short Course on GIS & Applications (SC) | Dr. Jagath Gunatilaka (Earth Sciences) | Feb. 18 – 24 | 43 |
| Workshop on Scientific Writing (WS) | Dr. NC Bandara PGIS | April 7 | 104 |
| 12 th Short course on GIS & Applications (SC) | Dr. Jagath Gunatilaka (Earth Sciences) | April 20 – 26 | 23 |
| Training Workshop on Exploring Opportunities in Nanoscience and Nanotechnology (NANOTECH-2008) (WS) | Prof. RMG Rajapakse Dr. DHS Maithripala (PGIS) | June 2 – 6 | 73 |
| 13 th Short course on GIS & Applications (SC) | Dr. Jagath Gunatilaka (Earth Sciences) | June 7 – 13 | 22 |
| 3 rd Short Course on Health and Anesthesia in Captive Elephants (SC) | Dr. A Dangolla (Zoological Sciences) | June 22 | 48 |
| Short Course in GPS & Applications (SC) | Dr. Jagath Gunatilaka (Earth Sciences) | July 9 | 10 |
| 14 th Short Course on GIS & Applications (SC) | Dr. Jagath Gunatilaka (Earth Sciences) | July 14 – 19 | 43 |
| Workshop on 'Enrichment of <i>Pinus</i> plantations with broad-leaved species: The way forward' (WS) | Prof. IAUN Gunatillake Dr. HMS Madawala Weerasinghe (Plant Sciences) | July 24 | 23 |
| Seminar Workshop on Performance Evaluation (S/WS) | PGIS | Aug. 28 | 24 |
| 15 th Short Course on GIS & Applications (SC) | Dr. Jagath Gunatilaka (Earth Sciences) | Oct. 13 – 18 | 34 |
| Workshop on Disaster Management (WS) | Dr. R Chandrajith (PGIS) | Nov. 26 – 27 | 115 |
| Peradeniya University Research Sessions (PURSE) - 2008 | | Dec. 18 | 33 (PGIS students) |

WORKSHOPS, SEMINARS & SHORT COURSES

REPORTS OF COORDINATORS

SHORT COURSES ON GIS AND APPLICATIONS

Five short courses in the series on GIS and Applications were conducted at the PGIS during 2008, coordinated by Dr. Jagath Gunatilake. The objective was to expose personnel from state and private sector organizations to Geographical Information Systems (GIS) & Global Positioning Systems (GPS) for efficient management and planning, and to provide basic theoretical and comprehensive hands-on training in the use of GIS for various applications.

Course Contents: • *Introduction to GIS and its application areas* • *Overview of Remote Sensing and its applications* • *Introduction to Coordinate Systems, Map Projection, Geo-referencing* • *GIS Database Creation (GIS Functions, Input of geospatial data – Digitizing etc.)* • *GIS Analysis (Single Layer/ Multi Layer Analysis, DEM generation, 3-D Analysis etc.)* • *Map output generation* • *Introduction to Global Positioning Systems (GPS) & its Applications* • *Application of GIS in various disciplines - Case Studies* • *Individual Mini Projects*

Resource persons were drawn from several Institutions and Universities. Lectures and some practical sessions on GPS were conducted during the first two days of the course while the GIS theory & other practical sessions were continued during the remaining period of the course. Practical sessions were held at the GIS and Remote Sensing Laboratory of the PGIS and these sessions were conducted until late evenings. Participants commended the quality of the courses and the facilities provided. Some stressed the need for similar courses for the staff of their Institutions. Many of the participants have also indicated the need for continuation of this programme and requested advanced training courses in the future.

Eleventh Short Course (18th to 24th February 2008)

The 43 participants included three participants from the Republic of Maldives while others were from North East Community Restoration and Development Project (NECORD), North East Coastal Community Development Project (NECCDEP), Wayamba University, Mahawali Authority of Sri Lanka, NWS&DB, Road Sector Development Project of Road Development Authority (RDA) and Oxfam GB (a development, relief, and campaigning organisation that works with others to find lasting solutions to poverty and suffering around the world).

Twelfth Short Course (20th to 26th April 2008)

The 23 participants were from National Water Supply and Drainage Board (NWS&DB), Tea Research Institute (TRI), Ministry of Fisheries, Department of Animal Production & Health, Sri Lanka Suntel Ltd., Survey Department, Water Resources Board (WRB) and Coconut Research Institute (CRI).

Thirteenth Short Course (7th to 13th June 2008)

The 22 participants were from the Department of Animal Production & Health, Sri Lanka Tea Board, Oxfam GB, Sri Lanka Red Cross Society, Survey Department, United Nations Office for Project Services (UNOPS) and Arbeiter Samariter Bund (ASB-INGO), an International Non-Governmental Organization working primarily to assist and promote the rehabilitation and development of displaced and vulnerable.

Fourteenth Short Course (14th to 19th July 2008)

The 43 participants of the course were from UNOPS, Kalmunai Municipal Council, Colombo Municipal Council, National Water Supply and Drainage Board (NWS&DB), Department of Census & Statistics, Sri Lanka Council for Agricultural Research Policy (CARP), Ministry of Healthcare & Nutrition, University of Colombo, Water Resources Board, and Sri Lanka Sustainable Energy Authority.

Fifteenth Short Course (13th to 18th October 2008)

The 34 participants were from National Water Supply and Drainage Board (NWS&DB), National Aquatic Resources, Research & Development Agency (NARA), Sri Lanka Sustainable Energy Authority, Sri Lanka Army, Sri Lanka Red Cross Society, Coconut Research Institute, Geological Survey & Mines Bureau (GSMB), Samurdhi Authority, Department of Census & Statistics, Sarvodaya, United Nation World Food Programme, District Planning Secretariat, Mahawali Authority of Sri Lanka, Road Development Authority and Provincial Departments of Health.

Coordinator: Dr. Jagath Gunatilaka

SHORT COURSE ON GPS AND APPLICATIONS (9th July 2008)

Responding to a request made by Oxfam GB, the Short Course on GPS and Applications was held at the PGIS for 10 officers of Oxfam GB. The objective of the short course was to expose personnel to the capabilities and strength of Global Positioning Systems (GPS) for efficient management and planning. The course would also provide basic theoretical and comprehensive hands-on training in the use of (GPS) for various applications. Practical sessions were conducted within the university premises including the GIS & Remote Sensing laboratory of the PGIS.

Coordinator: Dr. Jagath Gunatilaka

WORKSHOP ON SCIENTIFIC WRITING (7th April 2008)

The Workshop on Scientific Writing was held at the PGIS Auditorium for 104 postgraduate students of the PGIS. The objective of the workshop was to introduce the students to scientific writing in order to help them write their theses/project reports and scientific papers.

The workshop consisted of lectures/discussions on different aspects of postgraduate thesis/project report writing. The topics covered at the workshop were 'Title & Abstract', 'Introduction & Bibliography', 'Computer-Aided Literature Survey', 'Experimental/Materials & Methods', 'Results, Interpretation & Conclusions' and 'Structure & Layout of a Thesis/Project Report - An Overview'. Resource persons of the workshop were Professors B.M.R. Bandara, M.A. Careem, K. Dahanayake, M.A.K.L. Dissanayake, J.P. Edirisinghe & S.A. Kulasoorya (Faculty of Science, University of Peradeniya) and Prof. S.V.R Weerasooriya (Department of Science and Technology, Uva Wellassa University, Badulla).

Coordinator: Dr. N C Bandara

THIRD SHORT COURSE ON HEALTH AND ANESTHESIA IN CAPTIVE ELEPHANTS (22nd June 2008)

The third Short Course on Health & Anesthesia in Captive Elephants was held at the PGIS. The course was funded jointly by Hon. Pradeep Nilanga Dela (Diyawadana Nilame and President of the Captive Elephant Owners Association) and Lions Club of Kandy Hill Capital. The objective of this short course was to give the participants hands-on experience necessary to handle elephants during processions and elephants on rampage. Eighteen veterinarians involved in elephant tranquilizations and 30 final year students of the Faculty of Veterinary Medicine & Animal Sciences participated in the short course.

During the morning session, lecture presentations were made by Prof. Indira Silva & Dr. Asoka Dangolla (Department of Veterinary Clinical Sciences, University of Peradeniya), Dr. Vijitha Perera (Department of Wildlife Conservation) and Dr. Chaminda Dissanayake (National Zoological Gardens). In the afternoon session, participants were given practical training on the use of different tranquilization guns.

Coordinator: Dr. A Dangolla

WORKSHOP ON ENRICHMENT OF PINUS PLANTATIONS WITH BROAD-LEAVED SPECIES: THE WAY FORWARD (24th July 2008)

The objective of the workshop was to disseminate knowledge gathered during long-term research trials on Enrichment of *Pinus* plantations with broad-leaved species established and monitored in Sinharaja & Hantana study sites. The workshop was organized at the request of the Forest Department. There were 23 participants at the workshop including senior officers of the Forest Department. Invitees from Faculty of Agriculture, Department of Agriculture and Ministry of Agriculture and Agrarian Services also participated.

The Conservator of Forests outlined the history of *Pinus* plantations in Sri Lanka, the current status and future options for the management of lands. Thereafter the invasive potential of *Pinus* into grasslands and a review of *Pinus* enrichment with broad-leaved species were discussed. Participants were also taken on a guided tour to the field demonstration site at Lower Hantana.

Group discussions were held towards the end of the workshop and recommendations were made on the following themes: i) Silvicultural aspects and the choice of broad-leaved species for enrichment ii) Introduction of NTF species in *Pinus* plantations and community participation iii) Implementation strategies for *Pinus caribaea*: the way forward.

The Senior Deputy Conservator of Forests (Forest Inventory & Management) in his concluding remarks highlighted the importance of maintaining a healthy interaction between forestry professionals and researchers in the Universities. The Conservator also stated that the outcome of this workshop would be incorporated into their on-going implementation strategies for reforestation in different forestry working circles in Sri Lanka.

Coordinator: Prof. I A U N Gunatilleke

SEMINAR WORKSHOP ON PERFORMANCE EVALUATION (28th August 2008)

Twenty four staff members of the PGIS including trainees participated in the Seminar Workshop on Performance Evaluation. Prof. J M Gunadasa, a former Vice-Chancellor of the University of Peradeniya was the resource person at this event.

In the morning session, the presentations were on “*What is Performance Evaluation?*”, “*Why Performance Evaluation is needed in an Institute like PGIS*”, “*Objectives of Performance Evaluation*” and “*Types of Employee Performance Evaluation*”. In the afternoon, the participants had group discussions followed by presentations.

Coordinator: Dr. N C Bandara

WORKSHOP ON DISASTER MANAGEMENT (26th - 27th November 2008)

The PGIS, University of Peradeniya in collaboration with the Ministry of Disaster Management & Human Rights and the Disaster Management Centre (Central Province) conducted the workshop at Hotel Topaz, Kandy. The 115 participants included divisional secretaries, principals of schools, officers of the security forces and other officials from the Kandy district. Mr. Gotabaya Jayaratne (District Secretary, Kandy), Prof. Anura Wickramasighe (Deputy Vice-Chancellor, University of Peradeniya) and Prof. B.S.B. Karunaratne (Director, PGIS) were present at the inauguration ceremony. Mr. Sarath Ekanayake, Honourable Chief Minister of the Central Province addressed the workshop participants on the second day.

The following presentations were made at the technical sessions: ‘Initiatives taken by the Government for disaster management’ by Major General Gamini Hettiarachchi; ‘Environmental aspects of disaster management’ by Prof. C M Maddumabandara; ‘Landslides and earthquakes’ by Prof. K Dahanayake; ‘Floods and droughts’ by Prof. K D W Nandalal; ‘Lightning Hazards’ by Mr. K.R. Abayasingha; ‘Water quality as a disaster’ by Prof. C B Dissanayake; ‘The role of the veterinarian in the management of disasters and animals in conflict’ by Prof. Indira de Silva; ‘Public health and biological hazards in emergencies and disasters’ by Dr. Harischandra Yakandawala; ‘Social and cultural aspects of disaster management’ by Prof. H M D R Herath; ‘Application of GIS and remote sensing in disaster management’ by Dr. Jagath Gunathilake. Course material of the workshop was published as a booklet entitled (‘uOJu m<d; wdYs%; **wdmod iy tajd l<uKdlrKh**’), sponsored by the Soil Tech Ltd. and distributed to the participants.

Coordinator: Dr. R Chandrajith

PERADENIYA UNIVERSITY RESEARCH SESSIONS (PURSE) – 2008 (18th December 2008)

PURSE 2008 was held at the Faculty of Science premises and research papers were presented in 8 parallel sessions relating to disciplines of the 8 faculties of the University. Research students registered at the PGIS and their supervisors also made presentations.

PGIS ACTIVITIES IN FOCUS ...

AWARDS CEREMONY – Postgraduate Diploma in Science Education



Hon. Minister of Education, Mr. Susil Premajayantha, addressing the Awards Ceremony of the Postgraduate Diploma in Science Education (2006/2007 Batch) held on 12th January 2008 at the PGIS Auditorium.

PUBLIC LECTURE by Mr. Jayantha Dhanapala



Mr. Jayantha Dhanapala, Former Under-Secretary-General, United Nations for Disarmament Affairs and President, Pugwash Conferences on Science & World Affairs delivering his address on 'Why Nuclear Disarmament Matters For Sri Lanka?' on 4th November 2008 at the PGIS Auditorium.

INAUGURAL SESSION OF MSc PROGRAMMES - 2008



Prof. B S B Karunaratne, Director of the PGIS addressing the Inaugural Session of the M.Sc. Programmes on 22nd November 2008 at the PGIS Auditorium.

SHORT COURSES ON GIS AND APPLICATIONS



Participants of the 11th Short Course



A practical session of the 15th Short Course

WORKSHOP ON SCIENTIFIC WRITING



PGIS students at the Workshop on Scientific Writing

THIRD SHORT COURSE ON HEALTH & ANESTHESIA IN CAPTIVE ELEPHANTS



Distinguished invitees and participants

WORKSHOP ON 'ENRICHMENT OF PINUS PLANTATIONS WITH BROAD-LEAVED SPECIES: THE WAY FORWARD'



Participants at the field demonstration site

ANNUAL TRIP TO CHILAW



PGIS Staff

M.Phil. – Physics

1. H M J C Pitawala Synthesis and characterization of some PEO-based, Nano-composite Polymer Electrolytes

Place of Research : Department of Physics, University of Peradeniya
Supervisors : Prof. M A K L Dissanayake, Dr. V S Seneviratne & Bent Erick Mellander

M.Phil. – Plant Sciences

1. I M Ambagahaduwa Restoration of plant diversity in a monoculture *Pinus* plantation in lower Hantana, Sri Lanka

Place of Research : Department of Botany, University of Peradeniya
Supervisors : Professors I A U N Gunatilleke & C V S Gunatilleke

M.Phil. – Zoological Sciences

1. D H J W K Samaranayake Distribution and Ecology of Earthworms in selected habitats in Sri Lanka with Emphasis on soil fertility and composting

Place of Research : Department of Zoology, University of Peradeniya
Supervisor : Dr. S Wijekoon
2. W M C S Wijesundara Aspects of the foraging Ecology of selected bird species in Udawattakele forest Reserve, Sri Lanka

Place of Research : Department of Zoology, University of Peradeniya
Supervisor : Prof. K H G M de Silva

M.Sc. Degrees

Awardee

Title of Project Report

M.Sc. – Analytical Chemistry

1. S Karunaweera Investigation of the effect of Physico-chemical parameters on Cu(II)-Feldspar interactions
2. R M B Galkaduwa Evaluation of water quality of Girandurukotte where chronic kidney disease is prevalent
3. P A Kotabewatta Quantitative analysis of rainwater for investigation of air pollution at Peradeniya
4. M S A Fernando Alizarin red s impregnated conducting polymer as a potential ionic sensor (2008)
5. W J G S P S Fernando Feldspar-fluoride interactions: examination of interfacial processes by potentiometry
6. W S M N K K Wijerathne Preparation and quantitative study of the metal chelating ability of hydroxyquinoline-formaldehyde polymer

M.Sc. – Applied Statistics

1. Kadampeswaran Manimarrphan Study of modeling approaches for estimation of global solar radiation for Sri Lanka
2. Nagarajah Shasikumar Negative binomial distribution as an alternative to Poisson distribution for clustered counts

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3. Sivapathasuntharam Vaikunthan Prediction of dengue transmission and identification of factors responsible for breeding of vectors in dengue risk areas of Matale district
 4. Thambipillai Paskarajah Time series model for traditional export income in Sri Lanka
 5. J K B N Jayakody A study of investment climate of manufacturing industries in Sri Lanka
 6. W A D N Wickramarachchi Changes in consumption of rice in Sri Lanka and the rest of South Asia

M.Sc. – Computer Science

1. G M C S Megasooriya Performance Analysis of Existing public key cryptosystems
2. G C Karunaratne Usage of shortest path algorithm to find the most effective path
3. C H Satharasinghe Mobile based system for providing road traffic information

M.Sc. – Disaster Management

1. M S M Fasly Survey on establishment of coastal vegetation for Tsunami protection in Sri Lanka
2. W D N Fernando Management of coastal resources in Channel island of Negombo lagoon
3. K A Samantha Kumara An assessment of emergency preparedness of secondary and tertiary care institutions of Sri Lanka
4. P S M Charles Effect of Soil salinity in paddy cultivation in Vavuniya district
5. K A D W U K Kamaradiwela Drought identification and monitoring in Kurunegala district using standardized precipitation index
6. A S Karunaratne Emergency Response Plan for Teaching Hospital, Anuradhapura, Sri Lanka
7. T D M S B Dassanayake A study on ‘traffic injuries a disaster in Sri Lanka’
8. P A T P A Xavier Social impact on internally displaced persons living in long term camps
9. A W M Fahim Impact of seasonal flooding on living hoods in two selected urban low income communities in Colombo district
10. J P M W K Jayaweera Social impact on resettlement of landslide victims at Okandagala village, Hanguranketha

M.Sc. – Environmental Science

1. D B R P T Manike Possibility of cadmium and fluoride accumulation in tea plants and soils fertilized with Eppawala phosphate rock

M.Sc. – Experimental Biotechnology

1. K A D R Vishwajith Determination of the sensitivity of PCR based non-radiolabeled hybridization for the detection of *Mycobacterium tuberculosis*
2. P S Molligoda Determination of optimum population size for higher accuracy in mapping quantitative trait LOCI

M.Sc. – GIS & Remote Sensing

1. A L B Gunasingha Village Information System (VIS) as a prototype for multipurpose cadastre
2. S K Hettiarachchi Designing of scalable map symbol library for digital topographic mapping

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| 3. | U G H N Thilakarathna | Selection of potential solid waste disposal sites around Galle urban area using GIS techniques |
| 4. | S R Wadduwage | Identification and mapping of spatial distribution of floating aquatic plants in tanks using remote sensing and GIS |
| 5. | D T Solangaarachchi | Assessment of geographical risk and vulnerability of coastal communities of the Galle municipal council area for Tsunami |
| 6. | M S M Ikrima | GIS guided land suitability analysis for urban development activities in Trincomalee urban council (TUC) area |

M.Sc. – Industrial Chemistry

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|----|---------------|---|
| 1. | S A N C Silva | Removal of Phosphate and Phenol in wastewater using naturally available materials |
|----|---------------|---|

M.Sc. – Physics of Materials

- | | | |
|----|-------------------------|---|
| 1. | K M D N M Keerthisinghe | Effect of carbon filler on conductivity of (PEO) ₉ LiCF ₃ SO ₃ polymer electrolyte |
|----|-------------------------|---|

M.Sc. – Plant Sciences

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|----|----------------|---|
| 1. | G M M Perera | Antibacterial activity of the water decoctions of the constituent plants of the ayurvedic drug <i>Panchawalkala</i> and the medicinal plant <i>Abutilon indicum</i> |
| 2. | M G M Prasanna | Species composition and diversity of mangroves in Madu ganga mangal |
| 3. | A R R Shalika | Four medicinal plants used as ‘Danti’ in ayurvedic medicine in Sri Lanka: a taxonomical, anatomical and phytochemical study |

M.Sc. – Postharvest Technology of Fruits and Vegetables

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| 1. | P A W A N K Senevirathna | Effect of postharvest calcium chloride treatment on shelf-life and quality of Tomato (cv. ‘Thilina’) |
| 2. | W A J P Wijesinghe | Utilization of cassava through freezing |

M.Sc. – Science Education

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| 1. | T K K K Egodagamage | Relationship between school-based assessment ranking and problem-solving ability of A/L Chemistry students |
| 2. | K R K S Olagama | Effectiveness of information and communication technology applications for advanced level science education |
| 3. | A P G P Amarasinghe | Employment status of GCE A/L biological science stream students in selected provinces of Sri Lanka |
| 4. | D I Jayaratna | Preparation of a supplementary book on animal husbandry for GCE A/L Agriculture students and teachers |
| 5. | R G N K Rajapaksha | A supplementary guide for teachers and students, on selected medicinal plants used in Ayurvedaya |
| 6. | M L K Mukarram | Application of physico-chemical principles in Industrial Chemistry |
| 7. | A K M Nazeem | Difficulties encountered by key stage 3 pupils of Akurana (Central Province) in solving numerical division problems with special reference to an intervention relating to primary Mathematics textbooks |
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| 8. | V S Premakumara | Demonstration experiments for teaching magnetic phenomena for GCE A/L students |
| 9. | C D Pathirana | Preparation of a Supplementary guide on Diagnostic tests in Medicine for GCE A/L students and teachers |
| 10. | A N H Hubert | Tracer study of advanced level physical science stream school leavers in selected provinces |
| 11. | H M D D D Menike | Preparation of a supplementary manual on 'Problem solving in Physical Chemistry' |
| 12. | J A A Sahampath | Computer assisted teaching in Physical Chemistry concepts for GCE A/L students |
| 13. | Soundararajan Segar | The analysis of problems in the GCE A/L Chemistry practical work in some selected schools in Batticaloa District |
| 14. | I C N K Karunarathne | Preparation of supplementary guide for advanced level projects using a model experiment |



Ph.D. degree awardees of the PGIS being garlanded by Dr. Premadasa Udagama, the Chancellor of the University of Peradeniya at the General Convocation-2008 of the University of Peradeniya

Postgraduate Diplomas

Diploma – Analytical Chemistry

1. G K S Jayanath
2. D T Karunaratne
3. S Wickramaarachchi

Diploma – Biodiversity & Conservation Management

1. T S Mendis

Diploma – Computer Science

1. A I Gunatilaka

Diploma – Applied Statistics

1. E A C L Edirimanna
2. A N Liyanage
3. Veeragaththy Rajalingam
4. Sathasivam Seran
5. A A C Kanchana
6. Y M R Y Bandara
7. Suntharakanthan Mayooraan
8. Arumugaswamy Kishotharan
9. W P W G Puhulpanawa
10. H L C N Sewwandi
11. K G H S P Silva
12. D W T A Darshika

