



PGIS News

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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).

INTERNATIONAL CONFERENCE ON APPLIED EPIDEMIOLOGY



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

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).



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PGIS News

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M.Sc. DEGREE PROGRAMMES 2011/2012

M.Sc. Programme (Date of Commencement)	Board of Study	Coordinator(s)	No. of Students
Analytical Chemistry (November 12)	Chemical Sciences	Prof. H M D N Priyantha (Dept. of Chemistry, UPDN) Prof. M M A N Navaratne (Dept. of Chemistry, UPDN)	34
Applied Statistics (November 12)	Statistics and Computer Sc.	Dr. K Perera (Dept. of Engineering Mathematics, UPDN)	38
Biodiversity, Ecotourism and Environment Management (November 26)	Environmental Science	Dr. S K Yatigammana (Dept. of Zoology, UPDN)	14
Clinical Biochemistry (February 12)	Biochemistry and Mol. Biology	Prof. R Sivakanesan (Dept. of Biochemistry, UPDN) Dr. H K I Perera (Dept. of Biochemistry, UPDN)	10
Computer Science (November 12)	Statistics and Computer Sc.	Dr. A A I Perera (Dept. of Mathematics, UPDN)	56
Disaster Management (December 3)	Earth Sciences	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)	16
Engineering Geology and Hydrogeology (March 12)	Earth Sciences	Dr. H A Dharmagunawardhane (Dept. of Geology, UPDN) Dr. Jagath Gunatilake (Dept. of Geology, UPDN)	33
Environmental Science (November 19)	Environmental Science	Dr. R Fernando (Dept. Physics, Open University, Nawala)	28
Experimental Biotechnology (November 19)	Biochemistry and Mol. Biology	Dr. P Samaraweera (Dept. of Molecular Biology and Biotechnology, UPDN) Prof. S Ranasinghe (Dept. of Biochemistry, UPDN)	25
GIS and Remote Sensing (November 12)	Earth Sciences	Dr. Jagath Gunatilake (Dept. of Geology, UPDN)	35
Industrial Chemistry (November 12)	Chemical Sciences	Dr. C S Kalpage (Dept. of Chemical Engineering, UPDN) Dr. W M A T Bandara (Dept. of Chemistry, UPDN)	10
Industrial Mathematics (January 14)	Mathematics	Dr. W B Daundasekera (Dept. of Mathematics, UPDN)	10

Medical Physics (February 5)	Physics	Dr. V Sivakumar (Dept. of Physics, UPDN) Mr. A Dilip Kumara (Cancer Unit, Teaching Hospital, Karapitiya)	14
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)	44
Physics of Materials (November 18)	Physics	Dr. L R A K Bandara (Dept. of Physics, UPDN)	11
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)	25
Water Resources Management (November 19)	Earth Sciences	Dr. H A Dharmagunawardhane (Dept. of Geology, UPDN)	13

UPDN - University of Peradeniya

POSTGRADUATE DIPLOMA PROGRAMMES 2011/2012

Diploma Programme (Date of Commencement)	Board of Study	Coordinator(s)	No. of Students
Information Technology (IT) (January 14)	Statistics and Computer Sc.	Prof. S Kodituwakku (Dept. of Statistics and Computer Science, UPDN)	13
Science Education (January 14)	Science Education	Dr. S Karunaratne (Science Education Unit, UPDN)	40

UPDN - University of Peradeniya

PUBLIC LECTURES

Title	Speaker and Affiliation	Date
<i>Globalization of Higher Education and the implications for Smaller and Emerging Economies</i>	<i>Dr. Richard Navarro Fulbright Scholar Professor, College of Education and Integrative Studies California State Polytechnic University, Pomona, USA</i>	<i>January 14</i>

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)

WORKSHOPS, SYMPOSIA AND SHORT COURSES

Event	Coordinator(s) (Board of Study)	Date(s)	No. of Participants
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
30 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	February 7 - 12	28
7 th 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
31 st Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	March 21 - 26	44
32 nd Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	March 28 - April 2	38
33 rd Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	April 18 - 23	23

1 st Short Course on Analysis of Experimental Data	Prof. Pushpa Wijekoon (Statistics and Computer Science)	April 25 - 27	31
34 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	April 25 - 30	25
Training Programme on Dairy Management for Gamaneguma Officers	Dr. Ashoka Dangolla (Zoological Sciences)	May 10 - 13	15/7
8 th Advanced Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	May 23 - 28	28
Workshop on Scientific Writing	Dr. N C Bandara (PGIS)	May 27	94
35 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	May 30 - June 4	37
36 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	June 1 - 6	40
37 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	June 13 - 18	30
2 nd Short Course on Analysis of Experimental Data	Prof. Pushpa Wijekoon (Statistics and Computer Science)	August 1 - 3	37
6 th Short Course on Health and Anesthesia in Captive Elephants	Dr. Ashoka Dangolla (Zoological Sciences)	August 6	15
3 rd Short Course on Analysis of Experimental Data	Prof. Pushpa Wijekoon (Statistics and Computer Science)	August 15 - 17	42
38 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	August 22 - 27	47
9 th Advanced Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	August 29 - September 3	38
Workshop on Human Growth and Maturation - Clinical Applications	Prof. J G S Ranasinghe & Dr. Rasnayake M Mudiyanse (Biochemistry and Molecular Biology)	September 2	56
Workshop on Scientific Writing	Dr. N C Bandara (PGIS)	September 23	149
SAARC Training Programme on Urban Risk Management	Dr. Jagath Gunatilake (Earth Sciences)	October 30 - November 3	18
Workshop on Electrochemistry	Prof. M M A N Navaratne (Chemical Sciences) Dr. V A Seneviratne (Physics)	November 3	54
39 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	November 7 - 12	33

40 th Short Course on GIS & Applications	Dr. Jagath Gunatilake (Earth Sciences)	November 21 - 26	22
41 st 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

- K G N P Piyasena

Allelopathic activity studies of Sri Lankan flora and chemical investigation of endophytic fungi and terrestrial *Streptomyces* species

Place of Research Work: Institute of Fundamental Studies, Kandy

Supervisor: Prof. H R W Dharmaratne
- D A S Siriwardhana

Microbial insecticides from *Bacillus thuringiensis* and fungal metabolites from *Hirsutella thompsonii*

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

Ph.D. – Earth Sciences

- W L D R A Kumaratilake

A classification method for optical phenomena of cat's-eyes and stars in minerals

Place of Research Work: Postgraduate institute of Science, University of Peradeniya

Supervisors: Dr. S W Navaratne and Prof. P G R Dharmaratne

Ph.D. – Plant Sciences

- R H S S Fernando

Biodiversity of ecological communities and the biogeography of their species in three isolated hills in Sri Lanka

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

M.Phil. – Biochemistry & Molecular Biology

- H M P S Kumari

Isolation, partial purification and characterization of inhibitors for aspartic proteinases from *Spondias pinnata*

Place of Research Work: Department of Biochemistry, University of Peradeniya

Supervisors: Dr. S B P Athauda and Prof. P A J Perera

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2. D M Nanayakkara Serological detection and identification of rickettsial species infecting humans
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

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

***M.Phil.* – Chemical Sciences**

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

***M.Phil.* – Earth Sciences**

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

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

***M.Phil.* – Plant Sciences**

1. C M C P Chandrasekara Effect of soil-related factors on habitat specialization in the 25 ha forest dynamics
plot at Sinharaja rain forest, Sri Lanka
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

2. H A S Weerasinghe Edaphic Characteristics at the Ussangoda Serpentinite Deposit
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

***M.Phil.* – Zoology**

1. K Tillekaratne Taxonomy, distribution and host plant relationships of thrips in selected sites in Sri
Lanka
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

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. Sudharma Yatigamma (Chairperson, Board of Study in Zoological Sciences & Conference Co-coordinator) at the inauguration held on 3rd March 2011. Seated L to R: Dr. Samath Dharmaratne (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 Paranirupanthan 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 Piyarathna 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 Abeyesiriwardana 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

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| 4. | K S Somapala | Provenance and distribution of silica sand deposit at the Sri Lanka Air Force premises, Ekala, Sri Lanka |
| 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 |
| 14. | C A Jayasinghe | Evaluating the success of translocating problem creating elephants to mitigate human-elephant conflict in north-western wildlife region in Sri Lanka |

M.Sc. – Experimental Biotechnology

- | | | |
|----|------------------|---|
| 1. | P U Abeywickrama | Callus induction, plant regeneration and <i>Agrobacterium</i> -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

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|----|-----------------|---|
| 1. | B G R W Gamlath | Exploring conversion of perthite to moonstone by heat treatment |
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M.Sc. – GIS & RS

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|----|------------------|--|
| 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

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|----|------------------------|---|
| 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
3. S N C W M P S K Hulugalle Characteristics of clinical electron beams 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 Salgadoe 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 Ketheeswaran 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 Hanusiyana
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 Navaneethan
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 Samaranyake

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).