

CURRICULUM VITAE



1. PERSONAL DETAILS

i. Name : Dr. Jagath Gunatilake
ii. Nationality : Sri Lankan, by descent
iii. Religion : Buddhist
iv. Date & Place of Birth : 14th June 1963, Kurunegala, Sri Lanka
v. Marital Status : Married
vi. Sex : Male

2. ADDRESS

HOME : C80, University Quarters, Meewatura, Peradeniya
OFFICE : Department of Geology, University of Peradeniya, Peradeniya,
: GIS & RS Laboratory, Dept. of Geology, Faculty of Science,
University of Peradeniya, Peradeniya.
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3. SCHOOL ATTENDED : Maliyadeva College, Kurunegala, Sri Lanka. (1969 –1982)

4. EDUCATIONAL QUALIFICATIONS

a) PhD in Geotechnical Engineering:

University : Saga University, Saga, Japan
Years attended : 1998 April – 2002 April
Title of the Thesis : Study of Slope Failure Hazard for Evolution of the Mechanism of Movement
Effective Date : 31st March 2002.

b) PG Diploma in Deep sea mining and protection of the Environment

Universities : Berlin University and Hamburg University of Germany
Years attended : 1995 September – 1997 March
Effective Date : 30th March 1997.

c) Master of Science Degree (M.Sc.) in Engineering Geology and Applied Geophysics

University : Asian Institute of Technology AIT, Bangkok, Thailand.
Years Attended : 1992 September to 1994 April.
Thesis Title : Reservoir leakage problem of the Samanalawewa HEP, Sri Lanka.
Grade : **Excellent**
Effective Date : 21st April 1994.

d) B.Sc. (Special) Degree BSc Special Degree in Geology

University : University of Peradeniya, Peradeniya, Sri Lanka.
Years Attended : 1983 - 1988
Subjects offered : Geology Special Degree with Chemistry as Subsidiary subject
Grade : **First Class honors**
Effective Date : 17th May 1988.

6. EMPLOYMENT RECORDS (starting with **present** employment)

a) From : 09th September 1993
To : Todate
Present Position/s : Senior Lecturer, Former Head - Department of Geology
Coordinator – MSc Program in Engineering Geology & Hydrogeology,
Coordinator – MSc Program in GIS and RS PGIS, UoP
Institution : Department of Geology, University of Peradeniya, Peradeniya.
List of Duties; Conducting Lectures (Engineering Geology, Remote sensing and GIS,
Photo geology and Field Techniques), conducting Practical classes for
relevant courses, supervising the Graduate and undergraduate student
research projects, carrying out Field geological studies for graduates and
undergraduates, conducting lectures and supervising Research projects
for MSc programs in GIS & Remote Sensing, Engineering Geology,
Disaster Management, MPhil and PhD programs).

- b) From : 15th July 1991
 To : Until leave for postgraduate studies in September 1992.
 Title of Position : Assistant Lecturer
 Institution : Department of Geology, University of Peradeniya, Peradeniya.
 List of Duties : Conducting lectures, Practical classes, supervising student research projects and carrying out field geological studies for undergraduates.
- c) From : 06th October 1988
 To : 31st May 1991
 Title of Position : Project Engineering Geologist
 Institution/Organization : Samanalawewa Hydro Power Project
 Ms. Kumagai-Hazama-Kajima Joint Venture,
 List of Duties : * Subsurface investigation for quarry site to estimate the extractable volume of rock material for different zones of Dam embankment (4.5 mcm),
 * Assisted in quarry operation, continuous monitoring and recording of geological conditions on as excavated profiles of the quarry site, inspection and analysis of the suitability of rock materials for different zones of Dam,
 * Geological and structural mapping around the dam foundation, core trench, spillway foundation, subsurface tunnels & adits, quarry site etc.,
 * Geological interpretations of tender stage information and comparison with actual geological conditions during construction,
 * Preparation of the project Progress reports and assisted in the preparation of claim reports (for the Contractor).
- d) From : 6th June 1988
 To : 6th September 1988
 Title of Position : Trainee Geologist
 Institution : German Agency for Technical Corporation (GTZ), Rural Water Supply and Sanitation Project, Kurunegala District, Sri Lanka.
 List of Duties : * Geophysical investigations for groundwater explorations (Resistivity sounding, VLF Em-16 and interpretation, analysis of related curves and data,
 * Locating sites for deep tube wells considering geomorphological, geophysical investigations and available bore-hole data,
 * Lithological logging of bore-hole samples and correlation with drilling data, yield data and geophysical investigation data,
 * Geochemical sampling and analysis of groundwater and preparation of geochemical maps.
 * Preparation of Project reports and progress reports.

7. RESEARCH PROJECTS/CONSULTANCY WORK RECENTLY COMPLETED/CURRENTLY PROGRESSING

- a) **Name:** High Resolution RTK Drone Survey for Siyambalanduwa Solar Park and transmission line (26 km) from Siyambalanduwa to Moneragala Grid Station
Year: 2021 July (Completed and the report to be submitted)
Location: Siyambalanduwa – Moneragala, Sri Lanka
Client: Asian Development Bank (ADB)
Project Features: Sample drone survey and Video filming Siyambalanduwa Solar Park and transmission line (26 km) from Siyambalanduwa to Moneragala Grid Station
Position: Drone Survey Expert
Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 1 cm, creating Digital Surface Model (3D model), Baseline video footage along the area under study. Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area of the proposed transmission line and the solar park, Locating the angle tower points up to 1 cm accuracy on ground by pegging.
- b) **Name:** High Resolution RTK Drone Survey for identifying suitable sites for wind power turbines in Mannar Island
Year: 2021 August (Commenced and in progress)
Location: Mannar - Sri Lanka
Client: Sustainable Energy Authority of Sri Lanka
Project Features: RTK drone survey and video filming of entire Mannar Island
Position: Drone Survey Expert
Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the accuracy of 1 cm, creating Digital Surface Model (3D model), Baseline

video footage along the area under study. Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

c) Name: High Resolution RTK Drone Survey for identifying suitable sites for wind power turbines from Silawatura to Mullikulam (Modaragam Aru) 23 km stretch along the western coast of Sri Lanka

Year: 2021 August (Completed and final outputs to be submitted)

Location: Mannar; Silawatura to Mullikulam - Sri Lanka

Client: Ceylon Electricity Board

Project Features: RTK drone survey and Video filming along the 23 km land stretch.

Position: Drone Survey Expert

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the accuracy of 1 cm, creating Digital Surface Model (3D model), Baseline video footage along the area under study. Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

d) Name: High Resolution RTK Drone Survey; A Sample survey for identifying suitable sites for wind power turbines in Mannar Island

Year: 2021 (Completed)

Location: Mannar - Sri Lanka

Client: Sustainable Energy Authority of Sri Lanka

Project Features: Sample drone survey and Video filming in northern and middle part of Mannar Island

Position: Drone Survey Expert

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the accuracy of 5 cm, creating Digital Surface Model (3D model), Baseline video footage along the area under study. Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

e) Name: High Resolution RTK Drone Survey to identify and quantify Bamboo plants for the use of Industry

Year: 2021 (Commenced and in progress)

Location: Upper Mahaweli Catchment - Sri Lanka

Client: Industrial Development Board, through PGIS, University of Peradeniya

Project Features: Identify matured bamboo plants along Mahaweli River banks and Upper catchment

Position: Drone Survey Expert

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 2 cm or less, creating Digital Surface Model (3D model), Baseline video footage along the (along the axis of the Mahaweli River), Digitize features in the orthomosaic to get the information of count of bamboo trees and to identify suitable areas for bamboo plantation

f) Name: High Resolution RTK Drone Survey along proposed Kandy Highway Tunnel trace (Suduhumpola to Thennekumbura)

Year: 2021 (Commenced and in progress)

Location: Kandy - Sri Lanka

Client: Road Development Authority through Engineering Design Centre (EDC), Faculty of Engineering, University of Peradeniya

Project Features: Kandy Tunnel Trace from Suduhumpola to Thennekumbura (5.3 km 2-lane highway tunnel)

Position: Drone Survey Expert

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 5 cm or less, creating Digital Surface Model (3D model), Baseline video footage along the proposed tunnel trace (along the axis of the trace), Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

g) Name: High Resolution RTK Drone survey along the entire Kaluganga Flood plain for the Hydrological study of the proposed deviated road trace of Ruwanpura Expressway from Kiriella to Ratnapura and compiling 3-D models

Year: 2021 August (Commenced and in progress)

Location: Ratnapura, Sri Lanka

Client: Road Development Authority (RDA) through Postgraduate Institute of Science (PGIS), University of Peradeniya

Project Features: 225 km² area along Kaluganga upstream flood plain from Ingiriya

Position: Project Leader

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the accuracy of 1 cm, creating Digital Surface Model (3D model), Baseline video footage along the proposed expressway trace (along the axis of the trace), Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

h) Name: RTK Drone survey along the proposed canal route (27 km) from Muruthawela Reservoir to Chandrika wewa, Embilipitiya for Gin-Nilwala Diversion Project

Year: 2021 (completed)

Location: Matara - Embilipitiya, Sri Lanka

Client: Ministry of Irrigation and Mahaweli Development

Project Features: 27 km long canal trace including 12 km existing canal and 15 km new canal)

Position: Project Leader

Role: Carrying out RTK Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the accuracy of 1 cm, creating Digital Surface Model (3D model), Baseline video footage along the area under study. Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

i) Name: High Resolution RTK Drone survey along the proposed deviated road trace of Ruwanpura Expressway from Kiriella to Ratnapura and compiling 3-D models for proposed 2 Intersections at Kiriella

Year: 2021 (Commenced and in progress)

Location: Ratnapura, Sri Lanka

Client: Road Development Authority (RDA) through Postgraduate Institute of Science (PGIS), University of Peradeniya

Project Features: 19 km long proposed deviated road trace for Ruwanpura Expressway from Ingiriya to Rathnapura

Position: Project Leader

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 10 cm or less, creating Digital Surface Model (3D model), Baseline video footage along the proposed expressway trace (along the axis of the trace), Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

j) Name: Sample RTK Drone survey for a part of the 100 MW Solar Park in Siyambalanduwa and a section of 26 km long transmission line from Siyambalanduwa to Moneragala and to compose a knowledge product

Year: 2021 (Completed)

Location: Siyambalanduwa to Moneragala, Sri Lanka

Client: Asian Development Bank (ADB), Sri Lanka Sustainable Energy Authority (SLSEA) and Ceylon Electricity Board (CEB)

Project Features: High resolution drone survey with accuracy of x,y & z upto 1 cm, including a dense GCPs ground survey of 500 acre land in Siyambalanduwa and along the proposed 26 km long transmission line to Moneragala

Position: Project Leader

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 10 cm or less, creating Digital Surface Model (3D model), Baseline video footage of the proposed land, Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area

k) Name: Composing a promotional video clip using Drone survey for a part of the 100 MW Solar Park in Siyambalanduwa, Solar park in Hambantota and a section of 26 km long transmission line

Year: 2021 (Completed)

Location: Siyambalanduwa to Moneragala, Sri Lanka

Client: Asian Development Bank (ADB), Sri Lanka Sustainable Energy Authority (SLSEA) and Ceylon Electricity Board (CEB)

Project Features: Video clip by drone survey in 500 acre land in Siyambalanduwa and along the proposed 26 km long transmission line to Moneragala and other renewable energy sources in operation.

Position: Project Leader

Role: Carrying out Drone Survey and obtain video clips using drones with the resolution of 10 cm or less, creating a promotional video indicating different landuse types and topography.

l) Name: RTK Drone survey for Lanka Mineral Sands Corporation to estimate the volume of mineral sands

Year: 2021 (Completed)

Location: Pulmuddai - Sri Lanka

Client: Lanka Mineral Sands Corporation, through CES, University of Peradeniya

Project Features: Mineral sand stockpiles along the pulmuddai beach

Position: Project Leader

Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) for creating Digital Surface Model (3D model), along the stockpiles of mineral sands and create Contour dataset with 1 m interval derived from the 3D model and precisely estimate the volume of mineral sands including Ilmenite, Rutile, zircon etc.

- m) Name:** RTK Drone survey along the proposed road trace of Central Expressway (Potuhera to Galagedera)
Year: 2020 (Completed)
Location: Sri Lanka
Client: Road Development Authority (RDA) through CES, University of Peradeniya
Project Features: 35 km long proposed road trace for Kandy Expressway from Potuhera to Galagedera
Position: Project Leader
Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 10 cm or less, creating Digital Surface Model (3D model), Baseline video footage along the proposed expressway trace (along the axis of the trace) and create Contour dataset with 1 m interval derived from the 3D model in the buffer area
- n) Name:** RTK Drone survey along the proposed road trace of Ruwanpura Expressway
Year: 2020 (Completed)
Location: Kahathuduwa to Rathnapura, Sri Lanka
Client: Road Development Authority (RDA) through CES, University of Peradeniya
Project Features: 55 km long proposed road trace for Ruwanpura Expressway from Kahathuduwa – Ingiriya to Rathnapura
Position: Project Leader
Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 10 cm or less, creating Digital Surface Model (3D model), Baseline video footage along the proposed expressway trace (along the axis of the trace), Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area
- o) Name:** RTK Drone survey to identify the most suitable lands for Solar Power Projects in Kilinochchi District
Year: 2020 (completed)
Location: Sri Lanka
Client: Ceylon Electricity Board (CEB) through Asian Development Bank (ADB)
Project Features: Identification of 500 acre lands in Kilinochchi District for 10 MW solar projects
Position: Project Leader
Role: Carrying out Drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 10 cm or less, creating Digital Surface Model (3D model), Baseline video footage of the proposed land, Digitize features in the orthomosaic to get the information of count of buildings, existing roads and areas of the different landuse types in the buffer zone, and create Contour dataset with 1 m interval derived from the 3D model in the buffer area. Three land plots each with 500 acres were selected as suitable lands for 10 MW solar parks.
- p) Name:** Compilation of a Spatial Database (for proposed roads, bridges and registered contractors) for Road Development Authority (RDA)
Year: 2020 (in Progress)
Location: Sri Lanka
Client: Road Development Authority (RDA) through CES, University of Peradeniya
Project Features: A Complete database for the entire country including all administrative divisions of GN, DSD, Districts, Provinces and existing roads, proposed roads and bridges, to show the progress of the construction of proposed 100,000 km roads, and the spatial database of the RDA-registered contractors
Position: Project Leader
Role: Coordination and supervision of Developing a spatial database for proposed roads and bridges, to show the progress of the construction of proposed 100,000 km roads, and the spatial database of the RDA-registered contractors
- q) Name:** Geological and Geotechnical investigations for the EIA study for the proposed Kandy Highway Tunnel from Heeressagala to Thannekumbura for Road Development Authority (RDA)
Year: 2020 (in Progress)
Location: Sri Lanka
Client: Road Development Authority (RDA) through EDC, University of Peradeniya
Project Features: EIA for the proposed 5.3 km highway tunnel sections from Heeressagala to Thannekumbura
Position: Engineering Geology Specialist
Role: Review all available geological and structural data of the previous studies, carryout additional study and Interpretation of aerial photos and satellite imagery etc. together with information to be obtained from high resolution drone survey, Reviewing the landslide hazard map of NBRO (1:50,000 and 1:10,000), Review geotechnical properties of rock (and soil); General characteristics of the rock mass along the tunnel route and its surroundings, core drilling investigations on groundwater levels and correlate with geological profiles. Establish the potential locations for water ingresses, to the tunnel to enable evaluation of the effectiveness of remedial and mitigation measures etc.

- r) Name:** Geological and Geotechnical Investigations for Gin-Nilwala Diversion Project
Year: 2019 - 2020 (completed)
Location: Galla – Matara, Sri Lanka
Client: Ministry of Mahaweli Development and Environment and China CAMC Engineering Co., Ltd
Project Features: Carry out 80 – 330 m deep drilling – (32 drill holes) along , 18 km, 5.5 km and 12 km long 4.5 m diameter water conveying tunnels (3 tunnels)
Position: Project Leader
Role: Core drilling, geotechnical investigations for construction of 32 km long tunnel sections and dam foundations
- s) Name:** High Resolution drone Survey and Engineering geological, hydrogeological, and geotechnical investigations Gin-Nilwala Diversion Project
Year: 2017 - 2018 (completed)
Location: Galla – Matara, Sri Lanka
Client: Ministry of Mahaweli Development and Environment and China CAMC Engineering Co., Ltd
Project Features: 50 – 60 m high two RCC Dams, and a weir, three reservoirs, 18 km, 5.5 km and 12 km long 4.5 m diameter 3 water conveying tunnels
Position: Project Leader
Role: Carryout High Resolution drone Survey (using survey level accurate RTK drone) and obtain Orthomosaics using the survey grade drones (RTK) with the resolution of 10 cm or less, creating Digital Surface Model (3D model). Engineering geological, hydrogeological, and geotechnical investigations for construction of 32 km long tunnel sections and dam foundations
- t) Name:** GIS Mapping of Water Sources in Matale, Nuwara Eliya & Moneragala Districts
Year: 2019 (Completed)
Location: Sri Lanka
Client: National Water Supply & Drainage Board through ADRA, Sri Lanka through CES, University of Peradeniya
Project Features: Major landslide occurred just above the penstocks and the power house of Victoria Power Station
Position: Team Leader
Role: GIS mapping of drinking water sources in Matale, Nuwara Eliya & Monaragala Districts conducted as a phase of the 'Assisting Communities in Creating Environment and Nutritional Development' (ACCEND) project, which is funded by European Union (EU).
- u) Name:** Geotechnical Investigation and Designing Mitigation Measures for the Landslide at Victoria Power Station
Year: 2004 (Completed)
Location: Sri Lanka
Client: Ceylon Electricity Board, through PGIS, University of Peradeniya
Project Features: Major landslide occurred just above the penstocks and the power house of Victoria Power Station
Position: Team Leader
Role: Slope Stability investigation and design of remedial measures and monitoring
- v) Name:** Geological, Engineering Geological, Hydrogeological and Structural Mapping for Main Dam Foundation, Saddle Dam Foundation, Reservoir and Geotechnical investigations of 6 km long proposed tunnel trace, Quarry site, 7 km long proposed canal trace of Kaluganga Moragahakanda Multipurpose development Project
Year: 2013 - 2014 (Completed)
Location: Kalu Ganga – Moragahakanda Project, Sri Lanka
Client: for the LAHMYER Int'l GmbH Consultancy Company (German) under the Ministry of Mahaweli Development.
Project Features: Rock and Earth Fill
Position: Project Leader
Role: Carryout Geological, engineering geological and structural mapping for entire reservoir area, main dam and saddle dam foundations, 6 km long proposed tunnel trace, 7 km long canal trace, quarry site and compiling maps and profiles, Compilation of Report.
- w) Name:** Engineering Geological, Geological, Hydrogeological and Structural Mapping for alternative 9 km long proposed tunnel trace of Kaluganga Moragahakanda Multipurpose development Project and geophysical investigations (electrical resistivity) for shallow sections tunnel trace.
Year: 2015 - 2016 (Completed)
Location: Kalu Ganga – Moragahakanda Project, Sri Lanka
Client: Mahaweli Consultancy Bureau (MCB) Private Ltd. under the Ministry of Irrigation and Water Resources Management. through Dept. of Geology, University of Peradeniya
Project Features: 9 km long proposed alternative tunnel trace
Position: Project Leader
Role: Carryout Geological, engineering geological and structural mapping for 9 km long proposed alternative tunnel trace, 2-D and 1-D electrical resistivity survey along shallow sections of the tunnel and compiling maps and profiles, Compilation of Report.

- x) Name:** Engineering Geological, Geological, Hydrogeological and Structural Mapping along proposed 1 km long tunnel trace of North Western Province Canal Project and geophysical investigations (electrical resistivity) for shallow sections tunnel trace.
Year: 2015 - 2016 (Completed)
Location: Kalu Ganga – Moragahakanda Project, Sri Lanka through Dept. of Geology, University of Peradeniya
Client: Mahaweli Consultancy Bureau (MCB) Private Ltd. under the Ministry of Irrigation and Water Resources Management.
Project Features: 1 km long proposed Kahalla - Mahakitula tunnel trace in Galewela
Position: Project Leader
Role: Carryout Geological, engineering geological and structural mapping for 1 km long proposed tunnel trace, 2-D and 1-D electrical resistivity survey along shallow sections of the tunnel and compiling maps and profiles, Compilation of Report.
- y) Name:** EIA of Rwimi Hydropower Project, Kasese, Uganda
Year: 2011 (Completed)
Location: Uganda
Client: Eco Power Ltd.
Project Features: 30 m high concrete gravity dam, 3 km long channel and penstock line and power house
Position: Team Leader/ Engineering geological and Hydrogeological Consultant
Role: Preliminary geotechnical investigation for dam foundation, grout curtain, power house and canal trace of Rwimi Hydropower Project, Kasese, Uganda
- z) Name:** Geotechnical study for Rwimi Hydropower Project, Kasese, Uganda
Year: 2011 (Completed)
Location: Uganda
Client: Eco Power Ltd.
Project Features: Foundation investigation for 30 m high concrete gravity dam, 3 km long channel and penstock line and power house including core drilling (4 holes)
Position: Engineering geological and Hydrogeological Consultant for EIA study
Role: Geological and geotechnical aspects for dam foundation, power house and canal trace of Rwimi Hydropower Project, Kasese, Uganda
- aa) Name:** Geological investigations for Thalpitigala (Lower Uma Oya) Hydropower – Irrigation Project
Year: 2019 (Completed)
Location: Sri Lanka
Client: Department of Irrigation through Dept. of Geology, University of Peradeniya
Project Features: The Thalpitigala Reservoir of 15.56 MCM capacity will be constructed in Badulla District in Uva Province, Sri Lanka. The main objective of this project is to solve the possible water deficit in lower areas of Uma Oya.
Position: Consultant for engineering geological mapping along proposed tunnel trace
Role: Engineering Geological, Hydrogeological, and Geotechnical investigations for construction of Thalpitigala (Lower Uma Oya) Hydropower – Irrigation Project 1 km long tunnel section.
- bb) Name:** Engineering Geological Study and Drone survey along Upper Elahera Canal (Tunnel) Project
Year: 2017- 2018 (completed)
Location: Sri Lanka
Client: Ministry of Mahaweli Development and Environment (through CECB) by CES, University of Peradeniya
Project Features: Review of hydrogeological, geological and geotechnical aspects of the proposed 26 km long tunnel sections (Tunnels 3 & 4) of the Upper Elahera Canal Project.
Position: Team Leader
Role: Reviewing hydrogeological, geological and geotechnical aspects of the proposed 26 km long tunnel sections (Tunnels 3 & 4) of the Upper Elahera Canal Project, drone survey along critical sections of the proposed tunnel trace, field investigation to identify potential environmental problems, writing review report.
- cc) Name:** Engineering geological, hydrogeological, and geotechnical investigations for major water ingress problem of Uma Oya Multipurpose Development Project
Year: 2015 – 2019 (completed)
Location: Sri Lanka
Client: Ministry of Mahaweli Development and Environment and Farab (Iran) Co., Ltd
Project Features: Engineering geological, hydrogeological, and geotechnical investigations for construction of 15.2 km long headrace tunnel and 3.5 km long Link tunnels of Uma Oya Multipurpose Development Project.
Position: Project Leader
Role: Engineering geological, hydrogeological, and geotechnical investigations for major water ingress problem in the construction of 15.2 km long headrace tunnel and 3.5 km long Link tunnels of Uma Oya Multipurpose Development Project, drone survey along critical sections of the tunnel trace, Monitoring groundwater level variation and proposing mitigation measures to control the tunnel water leakage problem, predicting the subsurface geological and hydrogeological conditions.

dd) Name: Comprehensive Geological and Geotechnical study of Uma Oya Multipurpose Development Project

Year: 2015 (completed)

Location: Bandarawela – Wellawaya, Sri Lanka

Client: Ministry of Mahaweli Development and Environment

Project Features: Engineering geological, hydrogeological, and geotechnical assessment water ingress in 15.2 km long headrace tunnel of Uma Oya Multipurpose Development Project and find most suitable mitigation measures. Carry out drone survey along the tunnel trace

Position: Chairman of the Expert Panel appointed by the President

Role: Carry out Engineering geological, hydrogeological, and geotechnical investigations for major water ingress problem in the construction of 15.2 km long headrace tunnel and recommending most suitable mitigation measures.

ee) Name: Greater Kandy Strategic City Development Project using drone survey

Year: 2017 – 2018 (completed)

Location: Kandy, Sri Lanka

Client: JICA (through Oriental Consultants Japan)

Project Features: Formulation of Greater Kandy Urban Plan which consists of (i) revision of urban development vision in Kandy metropolitan area, and (ii) a detailed plan for the heritage area.

Position: Project Leader

Role: Building survey for Kandy city including a high resolution drone survey and compilation of building database for Kandy CBD using drone survey

ff) Name: Greater Kandy Strategic City Development Project

Year: 2017 – 2018 (completed)

Location: Kandy, Sri Lanka

Client: JICA (through Oriental Consultants Japan)

Project Features: Formulation of Greater Kandy Urban Plan which consists of (i) revision of urban development vision in Kandy metropolitan area, and (ii) a detailed plan for the heritage area.

Position: Project Leader

Role: Drone survey for Kandy city obtaining high resolution drone images and compilation of streetscapes for entire road sections within Kandy CBD.

gg) Name: Geological and Engineering geological study for the EIA of Kurunegala - Habarana Proposed new Railway Line Extension Project

Year: 2017 (completed)

Location: Sri Lanka

Client: Department of Railways, Sri Lanka

Project Features: Department of Railways is planning to construct a new direct railway line from Kurunegala to Habarana via Dambulla and Sigiriya.

Position: Geological and hydrogeological consultant

Role: Conducting geological and hydrogeological study for EIA of Kurunegala - Habarana proposed new railway line extension project including three tunnel sections

hh) Name: Geological and Engineering geological study for the EIA of Horana Rathnapura Pelmadulla Proposed Expressway project

Year: 2017 - 2018 (completed)

Location: Sri Lanka

Client: RDA through Skills International

Project Features: The Ruwanpura Expressway, also known as the E06 Ratnapura Highway, is a planned expressway route connecting Colombo to the region of Ratnapura. It will be Sri Lanka's 6th expressway with 6 short tunnels.

Position: Geological and hydrogeological consultant

Role: Conducting geological and hydrogeological study for EIA of Horana Rathnapura Pelmadulla Proposed Expressway project.

ii) Name: Geological and Engineering geological study for NWCP Cannel Project

Year: 2014 (completed)

Location: Sri Lanka

Client: Ministry of Mahaweli Development through Faculty of Science, University of Peradeniya

Project Features: Engineering Geological investigation of proposed 1 km long tunnel trace

Position: Project Leader

Role: Geological, engineering geological, hydrogeological and structural mapping of 1 km tunnel trace

jj) Name: Feasibility Study on Environmental and Social Conditions of 11 Sites for Pumped Storage Power Plants (Environmental Studies 1 and 2)

Year: 2014 (completed)

Location: Sri Lanka

Client: Electric Power Development Co. Ltd., Japan (for JICA) through CES, University of Peradeniya

Project Features: Study the feasibility of 11 proposed sites for pumped storage projects and a detailed study on 2 selected project sites

Position: Geology/Hydrogeological Consultant

Role: Study geological and hydrogeological feasibility for constructions of reservoirs, tunnel routes and power houses at 11 proposed locations and select the best 2 alternative sites and the detailed study

kk) Name: Engineering geological study for landslides within Upper Kothmale Hydro Power Project

Year: 2011 (completed)

Location: Sri Lanka

Client: Ceylon Electricity Board through PGIS, University of Peradeniya

Project Features: Detailed investigation for landslide vulnerability assessment of the Upper Kothmale Hydro Power project area

Position: Project Leader

Role: Slope stability investigations, Field mapping for landslide prone areas in the reservoir periphery and along the proposed tunnel trace, Compilation of landslide hazard zonation map, propose mitigation measures for potential slope instabilities

ll) Name: Investigation of leakage problems of Norton Bridge reservoir

Year: 1995 (completed)

Location: Sri Lanka

Client: Ceylon Electricity Board

Project Features: Water leakage at the Right Bank downstream of Nortonbridge Dam

Position: Engineering Geological Consultant

Role: investigation of the water leakage at the Right Bank downstream of Nortonbridge Dam, identification of the source and proposing mitigation measures to control the leakage

mm) Name: Investigation of leakage problems of New Laxapana tunnel

Year: 2003 (completed)

Location: Sri Lanka

Client: Ceylon Electricity Board

Project Features: Identification of the major water leak from New Laxapana Tunnel at Kiriwaneliya - just upstream of penstocks

Position: Consultant

Role: Investigation of the tunnel for possible leakage locations, carry out dye tests and propose suitable mitigation measures

nn) Name: Investigation of leakage problems of Maussakele reservoir

Year: 2003 (completed)

Location: Sri Lanka

Client: Ceylon Electricity Board

Project Features: Downstream seepage problem of Maussakele earth-fill saddle dam

Position: Consultant

Role: Investigation of the dam sections for possible leakage locations and propose suitable mitigation measures

oo) Name: Environmental study at Koladeniya Mini hydro power project

Year: 2013 - 2014 (completed)

Location: Sri Lanka

Client: Bank of Ceylon

Project Features: Environmental Study for sustainable development of the mini hydropower projects

Position: Team Leader

Role: Investigation of environmental conditions and proposing mitigation measures to control environmental impacts of the total project area and the surrounding

pp) Name: Environmental study at Ross Mini hydro power project

Year: 2013 - 2014 (completed)

Location: Sri Lanka

Client: Colorcone Tiles (pvt Ltd.)

Project Features: Environmental Study for sustainable development of the mini hydropower projects

Position: Team Leader

Role: Investigation of environmental conditions and proposing mitigation measures to control environmental impacts of the total project area and the surrounding

qq) Name: Development of Metadata Web Portal

Year: 2018

Location: Sri Lanka

Client: Ministry of Disaster Management and the Ministry of Environment & Mahaweli Development under UNDP project on "Ensuring global environmental concerns and best practices mainstreamed in the rapid development process of Sri Lanka through improved information management

Project Features: Compilation of Metadata Web Portal

Position: Team Leader

Role: Leading the Design Team of the web Portal, Training staff of the stakeholder Institutions, Collection and formulation of database

rr) Name: Compilation of digital maps and drone images for proposed elephant corridors between existing wildlife sanctuaries and other Protected Wildlife Regions

Year: 2018 (Completed)

Location: Sri Lanka

Client: Department of Wildlife Conservation through CES, University of Peradeniya

Project Features: Compilation of digital maps using drone images for proposed elephant corridors connecting the existing wildlife sanctuaries and other Protected Wildlife Regions – 13 sections from Wilpattuwa to Yala National Parks)

Position: Team Leader

Role: Drone imaging, design and compilation of elephant corridors and formulation of database of the landuse including buildings and roads

ab) Name: Feasibility study of the proposed highway from Badulla to Kandy (**Geological Hydrogeological and Geotechnical** study)

Year: 2018 (Completed)

Location: Sri Lanka

Client: Road Development Authority (RDA) through Maganeguma Consultants Ltd.

Project Features: Design and carryout feasibility study of the 34 km long road connection between Haliela and existing Randenigala Road

Position: Geological and Hydrogeological Consultant

Role: Design the road trace using maps and satellite images, carryout feasibility study for construction of 2-lane road through existing plantation areas, settlement areas, and forest areas. Compilation of geological and geomorphological maps and profiles to identify the most suitable trace for a highway.

ac) Name: EIA of the proposed highway from Badulla to Kandy

Year: 2013

Location: Kandy - Badulla Sri Lanka

Client: Road Development Authority (RDA) through PGIS, University of Peradeniya

Project Features: EIA study of the 34 km long road connection between Haliela and existing Randenigala Road

Position: Team Leader and the **Engineering Geological/Geotechnical Consultant**

Role: Leading the EIA team, writing reports, carry out geological and engineering geological study, and making presentations to CEA

ad) Name: **Additional Geotechnical study on Quarry sites, campsites and other utility sites** for the EIA Report on Moragolla Hydropower Project

Year: 2014 (Completed)

Location: Moragolla, Kandy, Sri Lanka

Client: Nippon Koei (Japan) Consultants through CES, University of Peradeniya

Project Features: Engineering geological mapping and study on Quarry sites, campsites and other utility sites for the EIA Report on Moragolla Hydropower Project

Position: Team Leader

Role: Leading the EIA team, writing reports, carry out geological and engineering geological study

ad) Name: **Geological and Geotechnical Investigations for the WindPark Areas in Mannar Island**

Year: 2013 (Completed)

Location: Mannar, Sri Lanka

Client: Resource Management Associates (pvt) Ltd., through RMC Geo-Lab Pvt Ltd. Geotechnical Investigation & Engineering Laboratory

Project Features: Subsurface geotechnical investigations by core drilling, sampling and field and laboratory analysis

Position: Geotechnical Consultant

Role: Supervise field and laboratory investigations, Writing and editing report

ae) Name: Investigation for the locations and depths of the buried Gas pipe lines at Kerawalapitiya

Year: 2008 (Completed)

Location: Kerawalapitiya, Colombo, Sri Lanka

Client: SHELL Gas Company, Sri Lanka

Project Features: Offshore buried pipe line for LP gas transport

Position: Team Leader, Geophysical Consultant

Role: Carryout GPR survey to identify the locations of existing buried pipeline to avoid damages by newly constructed offshore pipeline to unload diesel for Kerawalapitiya Diesel Thermal Power Plant

af) Name: **Geotechnical Investigation for Major Water Supply Project** at Nuwara Eliya – Talawakele

Year: 2012 (Completed)

Location: Sri Lanka

Client: Water Supply & Drainage Board

Project Features: Major Water Supply Project at Nuwara Eliya – Talawakele Reservoirs, tanks and pipelines
Position: Engineering Geological Consultant
Role: Carryout engineering geological study to identify the foundation conditions of the proposed weir sites, storage tanks and pipelines

ag) Name: Geotechnical Investigation for Dam, Reservoir and Treatment plant at Mul Oya for Major water Supply Project for Rikillagaskada - Hanguranketha
Year: 2012 (Completed)
Location: Sri Lanka
Client: Water Supply & Drainage Board
Project Features: Major Water Supply Project at Mul Oya, Reservoirs, Treatment Plant, tanks and pipelines
Position: Team Leader, Engineering Geological Consultant
Role: Carryout engineering geological study to identify the foundation conditions of the proposed Dam site, Design of grout curtain for the dam, investigation of the foundations for Treatment plant, storage tanks and pipelines.

ah) Name: Geological Hydrogeological and Geotechnical Investigation for Reservoir Leakage Problem of Samanalawewa Hydro Power Project
Year: 1994 (Completed)
Location: Sri Lanka
Client: Ceylon Electricity Board – Study conducted at the Asian Institute of Technology, Bangkok (under AIT Alumni Research Grant 1994)
Project Features: 105 m high rock and earth fill dam, 5.6 km long power tunnel and over 4 km long grouting adits
Position: Postgraduate Research Student, Engineering Geological Consultant
Role: Engineering geological investigations to identify the source of leakage, right bank ground conditions and identify the most suitable mitigation measures.

ai) Name: Geotechnical Site Investigation of the Sports Complex at Digana, Kandy
Year: 2003 (Completed)
Location: Sri Lanka
Client: Ministry of Sports, Central Province Provincial Council
Project Features: Swimming Pool, Gymnasium and pavilion for the sports ground
Position: Engineering Geological Consultant
Role: Engineering geological investigations to identify the foundation conditions for the construction sites

aj) Name: Remote sensing study on the spreading patterns of coconut leaf wilt disease in southern area of Sri Lanka
Year: 2012 - 2014 (Completed)
Location: Sri Lanka
Client: Coconut Research Institute (CRI, Lunuwila)
Project Features: GIS and Remote sensing applications to identify the existence and spread of the Coconut leaf wilt disease in Weligama – Matara area
Position: National Consultant
Role: Consulting the CRI staff of the investigation of the coconut leaf wilt disease, Remote Sensing investigations to identify the affected coconut cultivations and interpret the affected areas by satellite images.

ak) Name: User Satisfaction Survey – Dambulla to Trincomalee Highway, Sri Lanka
Year: 2011 (Completed)
Location: Sri Lanka
Client: Road Development Authority (RDA)
Project Features: Questionnaire survey for the users of Dambulla – Trincomalee Highway
Position: Project Consultant
Role: Consulting the Enumerator teams and coordination the questionnaire survey

8. CONFERENCES/SEMINARS/WORKSHOPS Coordinated/Organized

- a) Total of **124 six-day residential Short Courses** in “**GIS and Applications**” conducted at PGIS, University of Peradeniya (total of over 4,000 participants from various Governmental and Non-Governmental Organizations and Foreign Participants, were trained by 94 basic and 26 Advanced programs conducted since 2004, at the PGIS, University of Peradeniya.
- b) Second Three-Day Residential Training Programs on “**Spatial Data Management**” for the working Group of the National Spatial Data Infrastructure (NSDI), Organized for the Information Communication Technology Agency (ICTA) of Sri Lanka; Conducted during 13 – 15 December 2007 and 31 October to 2nd November 2018 at the PGIS.
- c) Three-Day Residential Training Programs on “**Spatial Data Management**” for the working Group of the National Spatial Data Infrastructure (NSDI), Organized for the Information Communication Technology Agency (ICTA) of Sri Lanka; Conducted during 13 – 15 December 2007 and 31 October to 2nd November 2017 at the PGIS.
- d) Workshop on “**Incorporating Community Voices Into Research-Led Policy Making For Disaster, Disaster Preparedness, Climate Change And Development**” In Collaboration Between The Post-Graduate Institute of Science (PGIS) And Department of Health Sciences, University York, February 27, 2017.
- e) Third UNDP Training Program on “**Data Management**” for decision making level officers from the Ministries of Lands, Environment and Mahaweli Development and Disaster Management (2018)
- f) Second UNDP Training Program on “**Data Management**” for decision making level officers from the Ministries of Lands, Environment and Mahaweli Development and Disaster Management (2017)
- g) UNDP Training Program on “**Data Management**” for decision making level officers from the Ministries of Lands, Environment and Mahaweli Development and Disaster Management (2017)
- h) **Forum of the Disaster Resilience Leadership Fellows**, Sri Lanka DRLA-ADPC-PGIS collaborative Program under the MOA between the Tulane University – USA, PGIS and ADPC, Conducted at the PGIS, University of Peradeniya and Hotel Nai Lait in Bangkok, Thailand, during 2012 - 2013
- i) SAARC Training Program in “**Urban Risk Management**” SAARC Member Countries. Conducted in collaboration with SAARC Disaster Management Centre, New Delhi, India and the PGIS, University of Peradeniya during October 30 – November 3, 2012 at the PGIS, University of Peradeniya.
- j) Advanced Training Program on “**Earth Observation Technologies for Flood Risk Mapping, Modeling and Management**” Organized Jointly with International Water Management Institute (IWMI), Ministry of Disaster Management, United Nations Organization for Outer Space Affairs (UNOOSA), Disaster Management Centre (DMC) and the Postgraduate Institute of Science (PGIS), University of Peradeniya during 18 -21 November 2014.
- k) Short Course on “**Application of GIS for Surveyors**”, CPD Program for Licensed Surveyors Association, in collaboration with Land Surveyors Council and the Postgraduate Institute of Science (PGIS) on 29th March 2019.
- l) Short Course on “**GPS and Applications**” Tailor-made Training Program for the capacity building of the Officers of the Ministry of Primary Industries, conducted during 29 – 30 July 2017 at the PGIS.
- m) Short Course on “**UAV Advanced Mapping and Technology**”, Residential Short Course conducted for capacity building of the staff of the Centre for Urban Water of the Metro Colombo Urban Development Project, Ministry of Urban Development, conducted at the PGIS, University of Peradeniya during 5-6 December 2019.
- n) Short course on “**Groundwater Hydrogeology**” Conducted for the Engineers of Kala Oya River Basin Office, by the Postgraduate Institute of Science, University of Peradeniya, during 29,30 September & 1st October 2005.
- o) Workshop on **Dynamic modeling for Landslide and Flood investigation** organized jointly by the Postgraduate Institute of Science (PGIS) and ITC – Netherlands, at the PGIS, University of Peradeniya in May 2006; with 80 participants.
- p) Short course in **Disaster Management** organized jointly by the Postgraduate Institute of Science (PGIS), Asian Disaster Preparedness Centre (ADPC) and Disaster Management Centre (DMC), during June 2006; for 122 participants from Governmental and Non-Governmental Institutions of Sri Lanka.
- q) Workshop on **Application of GIS and RS for Coastal Hazards**, organized jointly by the Postgraduate Institute of Science UNU and ITC, (June 2006 - 96 participants).
- r) 5th National Symposium on “**Geo-Informatics for Sustainable Development**” organized by the Geo-Informatics Society of Sri Lanka, Sri Lanka Foundation Institute, Colombo on July 25th 2008.

- s) National Symposium on **Geology of Sri Lanka** – 25th Anniversary Celebrations of the Geological Society of Sri Lanka, PGRC, Peradeniya, 27th to 2nd February 2009 (over 200 participants).
- t) ITC-NFP Refresher course on “Innovative approaches for multiscale landslide hazard and risk assesment” conducted by the ITC, The Netherland, during 19 – 30 October 2009, at PGIS, Peradeniya.
- u) Awareness workshop of the “**Application of Geoinformatics for Telecommunication**” – conducted at Sri Lanka Telecom Auditorium for Officers of the Sri Lanka Telecom, in March 2012.
- v) Workshop for “**Curriculum Development of Disaster Management MSc Program**” Conducted in collaboration with Asian Disaster Preparedness Centre (ADPC), Thailand at PGIS during 23 – 24 July 2013.
- w) Fifth (5th) Faculty Development Workshop on “**Disaster Management**” – in collaboration with ADPC and the PGIS, at PGIS, University of Peradeniya, during 17 – 19 July, 2013.
- x) “**Disaster Resilience Leadership (DRL) Forum - Sri Lanka; for Disaster Resilient Leadership Development**” Conducted in collaboration with ADPC at PGIS, University of Peradeniya on 13th July, 2013.
- y) Awareness Program on “**Landslide Disasters in Central Province of Sri Lanka**” conducted in collaboration with DRLFSL, NBRO and ADPC at PGIS during 12 – 13 July 2013.
- z) Training Program in “**Disaster Resilience Leadership**”, Conducted in collaboration with Tulane University – USA, ADPC – Thailand and the PGIS, University of Peradeniya, held at the Earl's Regency Hotel, Kandy during 3 -7 June 2013.
- aa) Short Course on “**ISO 14001**”; Conducted in collaboration with Centre for Environmental Studies (CES) at the Department of Geology, University of Peradeniya, during 1-2 June 2013.
- bb) **4th Faculty Development Workshop on Disaster Management** – Conducted in collaboration with ADPC and the PGIS, at PGIS, University of Peradeniya during 1 – 2 June 2013.
- cc) Short Course on “**Human Resource management**” in collaboration with Centre for Environmental Studies (CES) at the Department of Geology, University of Peradeniya, during 18-19 May 2013.
- dd) Workshop on “**Disaster Resilience Leadership**” conducted in collaboration with ADPC- Thailand and Tulane University-USA during 13 – 17 May 2013, at the Earl's Regency Hotel, Kandy.

9. SOME OF THE INTERNATIONAL CONFEERENCES/SEMINARS/WORKSHOPS ATTENDED

- a) **World Landslide Forum 3**, 2-6 June 2014, Beijing, China
- b) **International Conference on Engineering Geology** organized by IAEG, held in Hannover, Germany during 10th to 12th October 2000.
- b) **31st International Geological Congress (IGC)** held in Rio de Janeiro, Brazil, during 6th to 16th August 2000.
- c) **Forth Kansai International Geotechnical Forum (KIG Forum 2000)** held in Keihanna, Kyoto during 24-26 May 2000
- d) **International Symposium on Engineering Geology, Hydrogeology and Natural Disasters** with Emphasis on Asia held in Kathmandu, Nepal during 28-30 September 1999
- e) **2nd Asian Symposium on Engineering Geology and the Environment**, Held in Bangi, Malaysia during 23 – 25 September 1999
- f) **IS Tokyo/34th Geotechnical Conference** held in Tokyo during 20 - 24 July 1999
- g) **30th International Geological Congress (30th IGC)** held in Peking, China in August 1996
- h) Symposium/Workshop on “**Groundwater in Sri Lanka**” **conducted**, Organized by the Geological Society of Sri Lanka in collaboration with the Department of Geology, University of Peradeniya, in January, 1989.
- i) **GIS ARC-INFO workshop** (One week) conducted by the Remote Sensing Laboratory, Asian Institute of Technology (AIT), Bangkok, Thailand.
- j) Mini Workshop on **EIA**, (held during 25-27th Nov. 1994 at ISTI, Gannoruwa, Peradeniya) conducted by the Center for Environmental Studies.
- k) Second South Asia Geological Congress (GEOSAS) Jan. 19-24, 1995, Colombo, Sri Lanka.
- l) **'Deep Sea Mining and Protection of the Environment'** (One and a half years Training Program October 1995 to April 1997) under the scholarship offered under the directions of the International Seabed Authority of Jamaica (conducted by the Carl Duisberg Gessellschaft, Germany).
- m) Special Program on “**Management Training**” carried out by the Jansky Institute on behalf of the Carl Duisberg Gesellshaft e.V. of the Federal Republic of Germany.
- n) Workshop on “**Modeling of Submarine Hydrothermal Processes**” held in Free University of Berlin, Berlin, Germany during June 20 – 22, 1996.

- o) The Workshop on “**Using counseling skills in Higher education**” (22nd – 23rd May 2003) conducted by the Staff development Center, University of Peradeniya.
- p) Co-Leader of the Research Project on the **Pre-feasibility studies for the Moragahakanda Hydropower Project** in Sri Lanka; Research funded by the Mahaweli Authority of Sri Lanka and Ceylon Electricity Board (1995-1996).
- q) Refresher Course on “**Application of GIS in Disaster Management**” – Hanoi, Vietnam – October 2005.
- r) CASITA Workshop on “**Capacity building in Asia using IT applications in Disaster Management**”, Held in Hanoi, Vietnam, October 2005.
- s) 5th International Conference in **GIS and applications –MAP ASIA** held in Bangkok, Thailand August 2006.
- t) Symposium on “**Earthquake and Tsunami Disaster Preparedness and Mitigation**”, Bangkok, Thailand; November 7-10.
- u) Workshop on “**Capacity Building in Asia using IT Technology applications in Disaster Management**” – CASITA 2, Asia Hotel, Bangkok, Thailand 4 - 5 November 2006.

10. DETAILS OF RESEARCH AWARDS/SCHOLARSHIPS

- a) **Presidential Awards for Scientific publications** in the year – 2014/2015
- b) **NSF SUSRED Awards** for promoting postgraduate studies - 2015
- c) **NRC Merit Award** for Scientific publications - 2014
- d) Japanese Government **MONBUSHO Scholarship** for PhD studies at the Saga University, Saga, Japan (5 competitive scholarships for Sri Lanka per year – selected by the UGC), 1998 April to 2002 April.
- e) **AIT Alumni Association Annual research Grant** (only 2 grants per year) for studying the Reservoir Leakage Problem of the Samanlalawewa Hydropower Project, Sri Lanka; (1993 August to 1994 April)

11. POSITIONS HOLDING/HELD (Recent)

- **Director** of the Sri Lanka Japan Study Centre, University of Peradeniya
- **Co-Chair** of the 08th Conference on Sri Lanka Japan Collaborative Research: SLJCR- 2021 (Hybrid Conference) on “Together Towards for a Sustainable New Normal”
- **President** – University of Peradeniya Science Teachers Association (UPSTA) - 2021
- **Chairman** – Education Committee of the Institute of Geology, Sri Lanka (IGSL) (2020 – 2023)
- **Head** – Department of Geology, Faculty of Sciences, University of Peradeniya (July 2013 to July 2016)
- **Chairman** – Board of Study in Earth Sciences, PGIS, University of Peradeniya (2011 to 2016)
- **Deputy Director/Consultancy**– Center for Environmental Studies (CES), University of Peradeniya (2018 to date)
- **Deputy Director/Training**– Center for Environmental Studies (CES), University of Peradeniya (2015-2017)
- **Deputy Coordinator**– Center for Environmental Studies (CES), University of Peradeniya (2006-2015)
- **Member** – Board of Management – PGIS, University of Peradeniya (2011 to – 2016)
- **Coordinator** - MSc Program on Engineering Geology & Hydrogeology – PGIS, (2011 to date)
- **Coordinator** - MSc Program on GIS and Remote Sensing – PGIS, 2004-2006, 2006-2007 & 2007-2008, 2009–2010, 2011–2012, 2013-2014, 2015-2016, 2016-2017, 2017-2018, 2019/2020 (over 600 Students)
- **Coordinator** - 120 Short Courses on GIS and Applications conducted at the PGIS since 2014.
- **Coordinator** - Short Courses on ISO14000 conducted by the Center for Environmental Studies, University of Peradeniya (since 2015 – 2018)
- **Coordinator** – Disaster Resilience Leadership Program conducted by Asian Disaster Preparedness Centre (ADPC) in collaboration with the PGIS, University of Peradeniya in 2010, 2011, 2012 and 2013.
- **Coordinator** – Disaster Risk management – Awareness Short Course conducted for Government and private sector professionals, by the PGIS, University of Peradeniya in 2005
- **Member** – Institutional Review Team appointed by NASTEC to review IFS, Kandy (2013)
- **National Consultant** – Coconut Research Institute (CRI, Lunuwila) (2012 – to date)

- **Member** – Institutional Review Team appointed by NASTEC to review NBRO (2012)
- **External Member**-Faculty Board – Uwa Wellassa University of Sri Lanka (2007 – 2014)
- **President** of the Geoinformatics Society of Sri Lanka (GISSL) 2008/2009
- **President** Geological Society of Sri Lanka **GSSL** 2005/2006
- **Secretary**, Peradeniya University Science Teachers Association USTA-P, 2004-2005
- **Acting Proctor** – University of Peradeniya (for periods during 2010 -2012)
- **Deputy Proctor** – Faculty of Science, University of Peradeniya – 2004 to 2011
- **Editor** of the Geological Society of Sri Lanka (1998, 2007 - 2009)
- **Member** of the Japan Landslide Society, Japan
- **Member** of the Sri Lanka Geotechnical Society
- **Member** of the International Association for Water (IAW)
- **Member** of the Institute of Geology Sri Lanka (IGSL)
- **Member** of the Geological Society of Sri Lanka (GSSL)
- **Member** of the Geoinformatics Society of Sri Lanka (GISSL)

12. LIST OF PUBLICATIONS

THESES;

- i) **GUNATILAKE, A.A.J.K.**, (2002); Study of slope failure hazard for evolution of the mechanism of movement, Research Thesis submitted as a partial fulfillment of the requirement for the PhD in Engineering Geology, Graduate School of Science and Engineering, Saga University, Saga, Japan.
Supervisors; *Prof. Yushiro Iwao,,
Prof. Shigenori Hayashi,
Prof. Keinichi Koga,
Prof. Koji Ishibashi*
- ii) **GUNATILAKE, A.A.J.K.**, (1994); The Reservoir Leakage Problem of the Samanalawewa Hydropower Project, Sri Lanka, Research Thesis submitted as a partial fulfillment of the requirement for the M.Sc. in Engineering Geology, School of Civil Engineering, Asian Institute of Technology, Bangkok, Thailand. (GT-93-30) pp 194.
Supervisors; *Prof. Prinya Nutalaya,
Prof. A.S. Balasubramaniam,
Prof. Noppadol Phien-wej
Dr. Van Orsmael*
- ii) **GUNATILAKE, A.A.J.K.**, (1988); Geochemistry of Groundwater Around Wariyapola Area, with Special Reference to Nitrates, Research thesis submitted as a partial fulfillment of the requirements for the B.Sc. (Special) Degree in Geology, Department of Geology, University of Peradeniya, Peradeniya. pp 72.
Supervisor; *Prof. C.B. Dissanayake*

Publication List

Research Publications in refereed journals (full papers published)

1. Alahakoon, A. A. D. C., Kodituwakku, S. R. and **Gunathilake, J.** (2014). Coordinate Transformation Tool for Android Mobile Devices. Ceylon Journal of Science (Physical Sciences). Pp. 41 – 49.
2. Chamikara, M. A. P., Galappaththi, A., Yapa, R. D., Nawarathna, R. D., Kodituwakku, S. R., **Gunatilake, J.**, Jayathilake, A. A. C. A. and Liyanage, L. (2016). Fuzzy based binary feature profiling for modus operandi analysis. PeerJ Computer Science 2(3). DOI: 10.7717/peerj-cs.65. Pp. 1-32.
3. Chamikara, M. A. P., Yapa, Y. P. R. D., Kodituwakku, S. R. and **Gunathilake J.** (2012). SL-SecureNet: intelligent policing using data mining techniques. International Journal of Soft Computing and Engineering (IJSCE), Vol 2(1). Pp. 175-180.
4. Chamikara, M. A. P., Yapa, Y. P. R. D., Kodituwakku, S. R. and **Gunathilake J.** (2013). An efficient algorithm to detect the nearest location of a map for a given theme, International Journal of Scientific & Technology Research (IJSTR), Vol 2(4). Pp. 55- 59
5. Weliange, S. H. D. S., Fernando, D. and **Gunathilake, J.** (2014). Development and Validation of a tool to assess the physical and social environment associated with physical activity among adults in Sri Lanka. Journal of BMC public health. Pp. 1- 9.
6. Dharmarathne, N. and **Gunathilake, J.** (2013). Leachate characterization and surface groundwater pollution at Municipal solid waste landfill of Gohagoda, Sri Lanka. International Journal of Scientific and Research Publications, Vol 3, (11). Pp. 1-7.

7. Ekanayake, A. C. K., **Gunathilake, J.** and Dharmagunawardhane, H. A. (2009) 'Groundwater Development in Hard Rocks-A GIS Approach', Journal of Geological Society of Sri Lanka, Vol. 13. Pp.47-57.
8. Galappaththi, A., Chamikara, M. A. P., Yapa, Y. P. R. D., Kodituwakku, S. R. and **Gunathilake, J.** (2015). Identification of Neutral Members in Social Networks using a Distance and Fuzzy based Model. International Journal of Computer Applications. Vol. 119, Pp. 1-5
9. **Gunatilake, J.**, Iwao, Y. and Yamasaki, T. (2002). Relationship of the faulting to the creep movement of Iwakura landslide in Saga, Japan. Journal of Japan landslide society. Vol 39-2. Pp. 212-223.
10. Gunatilake, S. K., Iwao, Y., **Gunatilake, J.** and Kumaragamage, D. (2003). Geo-environmental Assessment for Nitrate Pollution of Groundwater by Fertilization in Shiroishi Plain in Japan. Journal of Soil Science Society of Sri Lanka, Rice Research and Development Institute, Sri Lanka, Vol. 14, Pp. 71-92.
11. **Gunatilake, J.** and Iwao, Y. (1999). Engineering geological Problems of reservoirs due to inadequate site investigation; A case study from Samanalawewa Dam, Sri Lanka. Journal of the Nepal Geological Society, International Symposium on Engineering Geology, Hydrogeology, and Natural Disasters with emphasis on Asia held in Katmandu, Nepal. Vol, 20 Pp.
12. Harshan, S., Thushyanthy, M., **Gunatilake, J.**, Srivaratharasan, T. and Gunaalan, K., 2016. Assessment of water quality index of groundwater quality in Chunnakam and Jaffna Town, Sri Lanka. Vingnanam Journal of Science, Vol 13, pp. 84-81.
13. Herath, D., Pitawala, A. and **Gunatilake, J.** (2016). Heavy metals in road deposited sediments and road dusts of Colombo Capital, Sri Lanka. Journal of the National Science Foundation of Sri Lanka. Volu 44, issue 2, Pp.193–202.
14. Iwao, Y., Yamasaki, T. and **Gunatilake, J.** (2000) Disaster induced by debris flow and flash water of Harihara River in Kagoshima, Japan. Mineralia Slovaca. Vol 32, Pp. 391-395.
15. Jayasooriya, G. A. J. S. K., Senaratne, S. M. L., Wijesinghe, W. M. C. M., Kusumawathie, P. H. D. and **Gunatilake, J.** (2009). Use of Geographical Information System (GIS) and Global Positioning System (GPS) for dengue and Dengue haemorrhagic fever control in Sri Lanka. Dengue Bulletin .Vol.33 (1). Pp. 11-20.
16. Karunathilake, A., Chamikara, M. A. P. and **Gunatilake, J.** (2014). Web GIS to Identify the Problematic Mobile Signal Clusters. International Journal of Computer Applications (IJCA). Vol 88. Pp. 30-34,
17. Karunaratne, S., **Gunatilake, J.**, Wijesuriya, W., Herath, K. and Smarappuli, L. (2011). Land Suitability model for rubber in Moneragala district: First approximation using GIS. Journal of the Rubber Research Institute of Sri Lanka. Vol. 91. Pp. 49-60.
18. Matsumoto, D., Shimamoto, T., Hirose, T., **Gunatilake, J.**, Wickramasooriya, A., DeLile, J., Young, S., Rathnayake, C., Ranasooriya, J. and Muraymag, M. (2010). Thickness and grain-size distribution of the 2004 Indian Ocean tsunami deposits in Periya Kalapuwa Lagoon, Eastern Sri Lanka. Sedimentary Geology. Vol. 230. Pp.95–104.
19. Perera, B. M. A. O., Abeygunawardena, H., Abeygunawardena, I. S., Wanigasundera, W. A. D. P., **Gunatilake, J.** and Jayasooriya, A. P. (2007) The human-elephant conflict (HEC): background and current situation in the northwestern wildlife region of Sri Lanka. Journal of Loris, Wildlife and Nature protection Society of Sri Lanka, Vol. 24: Pp.10-20.
20. Pussella, P.G.R.N.I., **Gunathilake, J.**, Bandara, K.R.M.U., Dammalage, T.L. and Jayakody, J.A.S., 2015. Coastline Changes: Vulnerability and Predictions-A Case Study of the Northwestern Coastal Belt of Sri Lanka. Journal of Tourism, Leisure and Global Change, 2(1), pp.TOC-125.
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13. PHD/MD/MPHIL AND MSc THESIS AND RESEARCH PROJECT REPORTS COMPLETED

Supervised 4 PhDs, 1 MD, 8 MPhil Theses, 219 MSc theses and research projects in the fields of Engineering Geology, Hydrogeology, GIS, Remote Sensing, Medical GIS, Disaster Management, Water Resources Management, Gemmology, Environmental Science etc.

I hereby certify that the above information is true and correct.



Dr. Jagath Gunatilake

17th September 2021.

Facilities available;

1. Deep and shallow core drilling machines – 3 Nos. (Japanese No. 1 Wireline model up to 600 m, Japanese No. 2 wireline model upto 400 m and Chinese model with SPT, DCPT, rock coring and sampling etc. upto 100 m.)
2. Drones – DJI RTK M-300 (2 units), Panthom 4 RTK – 1 unit, Panthom 4 pro & V2; 2 Units
3. Variety of field and laboratory soil testing equipment
4. Variety of field and laboratory rock testing equipment