

## KUDA UDAGE JANAKI SANDAMALI



“I like to work and study in a challenging environment to enhance my knowledge, my working capacities, professional skills and talent for build path of success towards me and the society.”

### Permanent Address:

No 111/06,  
Godella road,  
Galthude,  
Panadura,  
Sri Lanka

### Official Address:

Department of Spatial Sciences,  
Faculty of Built Environment and Spatial Sciences,  
Southern Campus,  
General Sir John Kotelawala Defence University,  
Sooriyawewa, Sri Lanka.

### Phone

: +94 (0) 71 7 248 785, +94 (0) 77 6 388 785

### Email

: [janakisandamali@gmail.com](mailto:janakisandamali@gmail.com), [janakisandamali@kdu.ac.lk](mailto:janakisandamali@kdu.ac.lk)

### ResearchGate

: [https://www.researchgate.net/profile/Janaki\\_Sandamali2](https://www.researchgate.net/profile/Janaki_Sandamali2)

### Google scholar profile

: <https://scholar.google.com/citations?user=YMGAJBgAAAAJ&hl=en>

## EDUCATIONAL QUALIFICATION



Reading **MSc in GIS and Remote Sensing (GPA of 3.94 out of 4.00** for course work), 6<sup>th</sup> October 2018 to present at Faculty of Graduate Study, University of Sri Jayawardenepura, Sri Lanka.

<http://graduate.sjp.ac.lk/>

### ▪ Main Subjects followed:

Geographic Information Systems (GIS), Remote Sensing, Applications of GPS and Equivalent Technologies, Introduction to Database Management Systems, Cartography for GIS, Advanced Technologies in GIS, Digital Image Processing & Advanced Remote Sensing, Advanced Database Management Systems, Fundamentals of Web GIS, Geostatistics In GIS, Spatial Analysis Modeling, Applications of GIS and Remote Sensing, Web GIS Applications, Programming in GIS, Advanced Mapping Technologies

▪ **Dissertation Title:** Geo Spatial Analysis of The Drought in Monaragala District of Sri Lanka

▪ **Supervisors:** Mr.B.A.S.C. Kumara, Miss.D.K.D.A. Ranaweera



Graduated **BScHons in Surveying Sciences, Specialization in Remote Sensing and GIS Degree** (16<sup>th</sup> July 2013 to 28<sup>th</sup> September 2017) (English Medium) with **FIRST CLASS (GPA of 3.78 out of 4.00, Class rank 02 out of 80)** ) at Faculty of Geomatics, Sabaragamuwa University of Sri Lanka. <http://www.sab.ac.lk/geo/>

### ▪ Main Subjects followed:

Remote Sensing, Microwave Remote Sensing, Global Navigation Satellite System (GNSS), Geographic Information Systems (GIS), Hydrographic Surveying, Geology, Photogrammetry, Land Surveying, Adjustment Computations, Digital Topographic Mapping, Geodesy, Environmental Science, Urban Planning, Construction Surveying, Physics, Mathematics and Computer Programming.

▪ **Dissertation Title:** Deforestation or Reforestation, a Time Series Remote Sensing Perspective of Wilpattu National Park, Sri Lanka.

▪ **Supervisor:** Dr. Duminda R. Welikanna

## CERTIFICATE COURSES



Certificate Course on “Improvement of Skills of Postgraduate Students in Statistical Analysis, Information Literacy, Research Methodologies and Scientific Writing” at University of Kelaniya, Sri Lanka. From 04.11.2018 to 10.02.2019 <http://www.kln.ac.lk/>



Certificate Course on “Teaching in Higher Education” at **Staff Development Centre, General Sir John Kotelawala Defense University**, Sri Lanka. From 24.02.2020 to 07.12.2020.



Certificate Course on “**Certificate Course in Basic Statistics**” at Institute of Applied Statistics Sri Lanka (IASSL), From 21.12.2020 to 28.12.2020.

## SCHOLARSHIPS / INTERNSHIPS



**Remote sensing and GIS analyst [Student Trainee]** (4<sup>th</sup> June 2017 to 1<sup>st</sup> September 2017), at **Geoinformatics Center (GIC), Asian Institute of Technology (AIT), Thailand.**  
<http://www.geoinfo.ait.asia/index.php>

- Project: “**Landslide Susceptibility mapping using maximum entropy modelling for disaster risk assessment project Utrakhand, India**” funded by the World Bank



**Scholarship participant** for the **10<sup>th</sup> Geoinformatics Online Summer School** (24<sup>th</sup> August 2020 to 2<sup>nd</sup> September 2020), at the State Key Lab of Information Engineering in Surveying, Mapping, and Remote Sensing, Wuhan University, China.



**Scholarship participant** for the Online Short Term Training Program on “**Application of GIS and Remote Sensing in Civil Engineering**” (23<sup>rd</sup> November 2020 to 28<sup>th</sup> November 2020), at the Department of Civil Engineering, Sri Siddhartha Institute of Technology, India.

## AWARDS

The award for **The best poster of Faculty of Geomatics (2017)**, 7<sup>th</sup> Annual Research session of the Sabaragamuwa University of Sri Lanka on “Strength Research, Technological Development and Innovation for the Future in Belihuloya, Sri Lanka”.

## RESEARCH INTEREST

My research interesting mainly goes on related to monitoring and modelling of different environmental problems and hazards by using Remote sensing, GNSS and GIS. And also, I am interesting on development of GIS and Remote Sensing Software product to cover 3D modelling and machine learning (Classification, Object recognition, Prediction, etc.).

## RESEARCH PUBLICATIONS

### Journal Publications:

- **Sandamali K.U.J.** and Dr. Welikanna D.R (2018). Deforestation or Reforestation, A Time Series Remote Sensing Perspective of Wilpattu National Park, Sri Lanka. **Journal of Applied Mathematics and Computation, ID: JAMC18031401, Hill Publishing Group, USA**  
<http://www.hillpublisher.com/journals/JAMC/2018/10/149.html>
- Sadeeka Layomi Jayasinghe, Lalit Kumar, **Sandamali K.U.J.** (2019), Assessment of potential land suitability for tea [*Camellia sinensis* (L.) O. Kuntze] in Sri Lanka using a GIS-based multi- criteria approach. Journal: Agriculture, Manuscript ID: agriculture 510209, <http://www.mdpi.com/journal/agriculture/>
- Sandamali K.U.J. Chathuranga K.A.M, (2020), Land Use Land Cover Change Analysis in Bolgoda Lake, Sri Lanka with the use of Satellite Remote Sensing-Remote Sensing Based Spatial Monitoring. Journal of the SLASS, Sri Lanka, Volume 3, Issue 1 – 2020 (Accepted)

## **Book Publications:**

- **Sandamali K.U.J.** and Dr. Welikanna D.R (2018). Mapping the Dynamics of Wilpattu Sri Lanka, through Remote Sensing, Deforestation and Reforestation analysis of wilpattu forest Sri Lanka-Remote Sensing Application. **The LAMBERT Academic Publishing**, International Book Market Service Ltd, Member of OminiScriptum Publishing Group, 17 Meldrum Street Beau Bassin 71504, Mauritius, Latvia, European Union, Editor: Catalina Popoveniuc, [www.lap-publishing.com](http://www.lap-publishing.com) (ISBN: 978-613-6-90773-4)
- **Sandamali K.U.J.** and Chathuranga K.A.M (2019). Artificial Neural Networks Based Automatic Feature Extraction, Linear and Area Feature Extraction from Worlview-02 Satellite Images for Cadastral Data Collection. **The LAMBERT Academic Publishing**, International Book Market Service Ltd, Member of OminiScriptum Publishing Group, 17 Meldrum Street Beau Bassin 71504, Mauritius, Latvia, European Union, Editor: Catalina Popoveniuc, [www.lap-publishing.com](http://www.lap-publishing.com) (ISBN: 978-613-9-45772-4)

## **Abstract Publications:**

- **Sandamali K.U.J.**, Dr. Welikanna D.R and Dr. Prasanna H.M.I. (2017). Deforestation or Reforestation, A Time Series Remote Sensing Perspective of Wilpattu National Park, Sri Lanka, **The 38 Asian Conference on Remote Sensing**, Space Applications: Touching human Lives, October 23-27, 2017 New Delhi, India ( Presented, Abstract Id: 232) <http://www.acrs2017.org/>
- **Sandamali K.U.J.**, Dr. Welikanna and Dr. Prasanna H.M.I. (2017). Studying the Dynamics of Wilpattu National Park, Sri Lanka, Using Satellite Remote Sensing. **The 7<sup>th</sup> Annual Research session of the Sabaragamuwa University of Sri Lanka**, Strengthening Research, Technological Development, and Innovation for the Future, 13<sup>th</sup> December, 2017 Belihuloya, Sri Lanka (Presented, Page:46)
- **Sandamali K.U.J.**, Chathuranga K.A.M (2019). Remote Sensing Based Land Degradation Monitoring in Bolgoda Lake and River Network, Sri Lanka, **Oral presentation** at the **International Symposium on Agriculture and Environment (ISAE 2019)** held at 28<sup>th</sup> February 2019 in ‘The Blue Water’, Wadduwa, Sri Lanka
- **Sandamali K.U.J.**, (2019). Remote Sensing Based Time Series Analysis of Urban Temperature in Kandy City, Sri Lanka, **Oral presentation** at the **1<sup>st</sup> Research Colloquium -2019 for MPhil/ PhD students** held at 07<sup>th</sup> April 2019 in Faculty of Graduate Studies, University of Kelaniya, Sri Lanka
- **Sandamali K.U.J.**, Chathuranga K.A.M. (2019), Remote Sensing Monitoring of Recent Morph dynamics in Kalido Beach- Kalutara, Sri Lanka. **Oral presentation, International Symposium on Earth Resources Management and Environment (ISERME 2019)**, university of Moratuwa, Department of Earth Resources Engineering.
- **Sandamali K.U.J.**, Chathuranga K.A.M, (2019). Time series analysis of urban temperature in Kandy city, Sri Lanka with the use of satellite remote sensing. 12th International Research Conference (KDUIRC 2019) of General Sir John Kotalawala Defense University. held at 11<sup>th</sup> and 12<sup>th</sup> September 2019 in General Sir John Kotalawala Defense University, Ratmalana, Sri Lanka
- **Sandamali K.U.J.**, Chathuranga K.A.M, (2019), Analysis of the Variation of Normalized Difference Vegetation Index (NDVI) Over Past Decade of Sri Lanka (2007 – 2017), 24<sup>th</sup> International Forestry and Environment Symposium, held at 11<sup>th</sup> and 12<sup>th</sup> October 2019, Department of Forestry & Environmental Science, University of Sri Jayewardenepura, Sri Lanka.
- **Sandamali K.U.J.**, (2019), Mapping the Land Use Land Cover Impacts by the War and Current Situation Using Remote Sensing and GIS in Mulative Sri Lanka from 1979, 2010 and 2018. , International Research Symposium on Pure and Applied Sciences (IRSPAS 2019), 25<sup>th</sup> October, 2019 at the Faculty of Science, University of Kelaniya, Sri Lanka.
- **Sandamali K.U.J.**, Chathuranga K.A.M., Rathnamali G.B.M. (2020), The Remote Sensing Monitoring of Aquatic Plants Growing In Bundala National Park Sri Lanka, Ruhuna International Science and Technology Conference (RISTCON 2020), 22<sup>nd</sup> January 2020 at the Faculty of Science, University of Ruhuna, Sri Lanka.
- **Sandamali K.U.J.**, Chathuranga K.A.M., (2020), The Remote Sensing Monitoring of Vegetation Condition Index based Agricultural Drought mapping over the past decade of Sri Lanka by utilizing the Satellite Remote Sensing, 13<sup>th</sup> International Research Conference (KDUIRC 2020) of General Sir John Kotalawala Defense University. held at 15<sup>th</sup> and 16<sup>th</sup> October 2020 in General Sir John Kotalawala Defense University, Ratmalana, Sri Lanka.
- C.G. Malavipathirana, **Sandamali K.U.J.**, (2020), Geospatial Based Land Suitability Assessment for Waste Dumping - A Case Study on Kesbewa DSD, Sri Lanka., 13<sup>th</sup> International Research Conference (KDUIRC

2020) of General Sir John Kotalawala Defense University. held at 15<sup>th</sup> and 16<sup>th</sup> October 2020 in General Sir John Kotalawala Defense University, Ratmalana, Sri Lanka.

- Swarnamali M.K.S., **Sandamali K.U.J.**, (2020), Remote Sensing-Based Habitat Mapping of Vankalai Coral Reef, Sri Lanka., 13th International Research Conference (KDUIRC 2020) of General Sir John Kotalawala Defense University. held at 15<sup>th</sup> and 16<sup>th</sup> October 2020 in General Sir John Kotalawala Defense University, Ratmalana, Sri Lanka.
- K.W.G.I.M. Kalugamuwa, K.A. Dinusha, **Sandamali K.U.J.**, (2020), GIS Mechanism For Terrain Trafficability, 13th International Research Conference (KDUIRC 2020) of General Sir John Kotalawala Defense University. held at 15<sup>th</sup> and 16<sup>th</sup> October 2020 in General Sir John Kotalawala Defense University, Ratmalana, Sri Lanka.

## PROFESSIONAL EMPLOYMENTS

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**Lecturer (Probationary)**, (24<sup>th</sup> January 2020 to Present) at **Department of Spatial Sciences, Faculty of Built Environment & Spatial Sciences, General Sir John Kotalawala Defence University**

<https://www.kdu.ac.lk/department-of-spatial-sciences/>

- Conducting **Geographic Information Science (GIS), Remote Sensing, (Global Navigation Satellite Systems (GNSS) and Geo statistics** lectures, practical classes and Examinations for undergraduate students
- Conducting **Land Surveying and Levelling** field practical and evaluations for undergraduate students



**Lecturer (Temporary)** (18<sup>th</sup> January 2019 to 23<sup>rd</sup> January 2020) at **Department of Oceanography and Marine Geology, Faculty of Fisheries and Marine Science and Technology, University of Ruhuna, Sri Lanka.**

<http://www.fmst.ruh.ac.lk>

- Conducted Geographic Information Systems (GIS), Geophysics for Marine Science, Remote Sensing, Satellite Oceanography and Global Navigation Satellite Systems (GNSS) lectures and Examinations for undergraduate students.



**Lecturer (Temporary)** (5<sup>th</sup> March 2018 to 17<sup>th</sup> January 2019) at **Uva Wellassa University of Sri Lanka.**

<http://www.uwu.ac.lk/>

- Conducted Lectures at Department of Export Agriculture, Faculty of Animal Science and Export Agriculture
- Conducted Visiting Lectures at Department Computer Science and Technology, Faculty of Science and Technology
- Conducted GIS, Remote Sensing and GNSS lectures and Examinations for undergraduate students
- Evaluated Geography continuous assessments and Examinations for undergraduate students



**Demonstrator** (4<sup>th</sup> December 2017 to 4<sup>th</sup> March 2018), Department of Remote Sensing and GIS, Faculty of Geomatics, Sabaragamuwa University of Sri Lanka.

<http://www.sab.ac.lk/geo/>

- Conducted Land Surveying and Levelling, Optical Remote Sensing, Advanced GIS and GIS modelling practical classes for undergraduate students
- Evaluated students' tutorials, field works, field records, plans and practical reports



**Visiting Lecturer** at Center of Open and Distance Learning, Uva Wellassa University of Sri Lanka (08th to 10th June 2018).

- Conducted QGIS training workshop in collaborate with the International Union for Conservation of Nature (IUCN) and the Uva Wellassa University.



**Visiting Instructor** (9<sup>th</sup> December 2017 to 9<sup>th</sup> April 2018) at Faculty of Graduate Studies, Sabaragamuwa University of Sri Lanka. <https://fgs-susl.edu.lk/msc-surveying-sciences>

- Conducted practical classes for **Master students** in M.Sc. in Surveying Sciences Degree



**Visiting Instructor** at Faculty of Engineering (Civil and Environmental), University of Ruhuna in Sri Lanka

- Survey Camp – 2017 (Morana Reservoir project) at Mahiyanganaya, Sri Lanka. (10<sup>th</sup> December 2017 to 22<sup>th</sup> December 2017)

## PROFESSIONAL QUALIFICATION

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### Familiar Software & packages

- Remote sensing software
- GIS software
- Programming languages
- Drafting Software
- Office Software
- : ERDAS Imagine, ENVI, TerrSet and SNAP
- : ArcMap, SAGA GIS and QGIS
- : MATLAB, R programming language, Maxent Software, C++, SQL, PHP, Python and Java / Java script (HTML/CSS)
- : AutoCAD
- : Microsoft Office

### Familiar Survey Instruments

- GPS (Trimble Handheld GPS, Leica and Trimble series 5700 with RTK unit)
- Total Station (Topcon and Trimble)
- Levels (Precise, Ordinary and Digital)
- Theodolites (Ordinary and Digital)

## ENGLISH PROFICIENCY

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- **IELTS academic** Overall score of band **6.5** (Competent User), CEFR Level ( Borderline C1/B2 )  
(Reading :7, Listening :6.5, Writing :5.5, Speaking: 6.5)

## PROFESSIONAL MEMBERSHIPS

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- **Life Member** of the **Sri Lanka Association for the Advancement of Science (SLAAS)**.  
Membership ID: 10775/C
- **Affiliate Member** of the **Organization for Women in Science for the Developing World (OWSD)**.  
Membership ID: 779
- The **Non-Cooperate Member** of **Survey Institute of Sri Lanka**.
- **Associate Member** of the **Geological Society of Sri Lanka (GSSL)**
- **Associate Member** of the **Institute of Environmental Professionals Sri Lanka (IEPSL)**
- The Surveying & Spatial Sciences Institute (SSSI) is Australia, Student membership, ID 9220

## WORKSHOPS

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- Participated in **Drone mapping workshop** (Trimble UX5, DJI Phantom, DJI Phantom, Sense Fly eBee and Parrot Bebop) conducted by **Geoinformatics center at Asian Institute of Technology, Thailand**.
- Participated in workshop on **Mapping with open street maps (OSM)**, workshop Conducted by **Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka**, in collaboration with OSGeo SRILANKACHAPTER (19<sup>th</sup> December 2017)

- Participated in Workshop on **Applications of Statistics Using Excel and SPSS in Research**, Conducted by **Uva Wellassa University Badulla, Sri Lanka**, in collaboration with **AIMST University, Malaysia**, **Professor Dr.K.Marimuthu** (20<sup>th</sup> and 21<sup>st</sup> August 2018).
- Participated to the Workshop on **Introduction to Time Series Modelling and Forecasting**, Conducted by the **General research committee of SLAAS, Sri Lanka**, **Professor Tilak Abeysinghe and Dr. Wasanthi Wickramasighe** (22<sup>nd</sup> March 2019).
- Participated technical tour to Thailand as a partial fulfillment of master degree (Satellite technology and related applications workshops at **Geo-Informatics and Space Technology Development Agency (GISTDA)** and **Asian Institute of Technology (AIT)**).

## SKILLS

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- Multi-Tasking
- Team Working and Knowledge Sharing
- Problem Solving and Leadership
- Confident Patience
- Good listener
- Ability to work in a multicultural context
- PowerPoint Presentations
- Honest and Reliable
- Keen observer
- Good communication skills

## BIOGRAPHIC DATA

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Full name : Kuda Udage Janaki Sandamali  
 Name with Initials : Sandamali K.U.J.  
 Date of Birth : 11<sup>th</sup> of March 1991  
 Nationality : Sri Lankan  
 Gender : Female  
 National Identity card : 915710948V  
 Passport No : N7021875  
 Marital Status : Married  
 Languages Known : English and Sinhalese

## NON RELATED REFEREES

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<p>           Dr.Duminda R. Welikanna,            Senior Lecturer,            Department of Surveying and Geodesy,            Faculty of Geomatics,            Sabaragamuwa University of Sri Lanka,            P.O.Box 02,            Belihuloya 70140            Sri Lanka.            Contact: (+94)77-1588007            Email: <a href="mailto:drw@geo.sab.ac.lk">drw@geo.sab.ac.lk</a> </p>	<p>           Mr. Pujitha Ranawaka            Department Head, Chartered Town Planner            Department of Spatial Sciences,            Faculty of Built Environment and Spatial Sciences,            Southern Campus,            General Sir John Kotelawala Defence University,            Sooriyawewa, Sri Lanka.            Contact: (+94)77-7902400            Email: <a href="mailto:pujitharanawaka@yahoo.com">pujitharanawaka@yahoo.com</a> </p>
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## DECLARATION

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I hereby certify that the above-mentioned particulars are true and accurate to the best of my knowledge.

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 Sandamali K.U.J.  
 17.12.2020