

**2<sup>nd</sup> International Symposium on Geo-Informatics (GEOSYM) 2022**  
**Faculty of Geomatics**  
**Sabaragamuwa University of Sri Lanka**



30<sup>th</sup> November – 1<sup>st</sup> December 2022

Belihuloya, Sri Lanka

Wednesday, 30 <sup>th</sup> November											
<p>Wednesday, 30<sup>th</sup> November 09:00 – 10:15 Sri Lankan time (GMT+5:30) Online</p>	<p><b>Opening Ceremony</b></p> <table border="0"> <tr> <td style="padding-right: 20px;">09:00 – 09:05</td> <td>Opening remarks</td> </tr> <tr> <td>09:05 – 09:15</td> <td>Welcome speech <i>Mr. Vipula Abeyratne</i> <i>Dean, Faculty of Geomatics, SUSL</i></td> </tr> <tr> <td>09:15 – 09:30</td> <td>Speech by Chief-Guest <i>Prof. Udaya Rathnayake</i> <i>Vice-chancellor, SUSL</i></td> </tr> <tr> <td>09:30 – 10:10</td> <td>Keynote speech <i>Prof. Vassilis Gikas</i> <i>National Technical University of Athens</i></td> </tr> <tr> <td>10:10 – 10:15</td> <td>Closing remarks <i>Dr. H.M.I.Prasanna</i> <i>Conference chair</i></td> </tr> </table>	09:00 – 09:05	Opening remarks	09:05 – 09:15	Welcome speech <i>Mr. Vipula Abeyratne</i> <i>Dean, Faculty of Geomatics, SUSL</i>	09:15 – 09:30	Speech by Chief-Guest <i>Prof. Udaya Rathnayake</i> <i>Vice-chancellor, SUSL</i>	09:30 – 10:10	Keynote speech <i>Prof. Vassilis Gikas</i> <i>National Technical University of Athens</i>	10:10 – 10:15	Closing remarks <i>Dr. H.M.I.Prasanna</i> <i>Conference chair</i>
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<p>Wednesday, 30<sup>th</sup> November 10:30 – 12:45 Sri Lankan time (GMT+5:30) Online</p>	<p style="text-align: center;">Technical Session: Surveying &amp; Geodesy                  Chair: Dr. Brian Rupasinghe                  Rapporteur: Dr. Nishamanie Ranasinghe</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding: 5px;">10:30 – 11:15</td> <td style="padding: 5px;"> <p><b>Plenary Speech by Prof. Wu Chen</b></p> <p><i>Professor/Head, Department of Land Surveying and Geoinformatics, The Hong Kong Polytechnic University</i></p> </td> </tr> <tr> <td style="padding: 5px;">11:15 – 11:30</td> <td style="padding: 5px;"> <p>Geospatial investigation of torrential rainfall-induced landslides on the windward side of Western Ghats- A case study of Kootickal, Kerala, India</p> <p><i>Amrutha A.S, Abin Varghese*, Sreelakshmi Prakash, Baiju K.R</i></p> </td> </tr> <tr> <td style="padding: 5px;">11:30 – 11:45</td> <td style="padding: 5px;"> <p>Extraction of Powerline Corridor by using Drone Images and its Point Cloud Data</p> </td> </tr> </table>	10:30 – 11:15	<p><b>Plenary Speech by Prof. Wu Chen</b></p> <p><i>Professor/Head, Department of Land Surveying and Geoinformatics, The Hong Kong Polytechnic University</i></p>	11:15 – 11:30	<p>Geospatial investigation of torrential rainfall-induced landslides on the windward side of Western Ghats- A case study of Kootickal, Kerala, India</p> <p><i>Amrutha A.S, Abin Varghese*, Sreelakshmi Prakash, Baiju K.R</i></p>	11:30 – 11:45	<p>Extraction of Powerline Corridor by using Drone Images and its Point Cloud Data</p>				
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		<i>BMN Premarathne*, Manuranga KP, Vandebona R, Prasanna HMI, Lakmal AH</i>
	11:45 – 12:00	Accuracy analysis of short and long baselines with different combination of satellite constellations  <i>Kuganan. V*, Prasanna H.M.I.</i>
	12:00 – 12:15	Assessment of high-resolution global geopotential models to fill the levelling height void for the Sri Lankan region  <i>Edirisinghe E.A.D.U.*, Welikanna D.R., Thunendran P., Bandara R.</i>
	12:15 – 12:30	Accuracy and stability analysis of GPS aided geo augmented navigation (GAGAN) for hydrographic applications in Sri Lanka  <i>R.K.A. Ariyaratna*, Y.M.R.N. Kumari, R.D.M.I. Rathnayake, P.V.D. Tharanga, T.L Dammalage, M.D.E.K. Gunathilaka</i>
	12:30 – 12:45	Influence of Antenna Height and Satellite Geometry on Pseudo Range Multipath  <i>Gobinath Vaiguntharasa, Jenan Rajavarathan*, Dammalage Thilantha</i>
<p>Wednesday, 30<sup>th</sup> November 14:00 – 16:30 Sri Lankan time (GMT+5:30) Online</p>	<p>Technical Session: Land Management Chair: Prof. Jagath Munasinghe Rapporteur: Dr. N.M.P.M.Piyasena</p>	
	14:00 – 14:45	<p><b>Plenary Speech by Prof. Dr. Walter Timo de Vries</b></p> <p><i>Dean of Studies for the Geodesy and Geo Information programs and Academic Coordinator of TUM,Afrika</i></p>
	14:45 – 15:00	<p>Geoinformatics-based land use / cover changes and its ecological impact on Andaman and Nicobar islands with special reference to coral reef</p> <p><i>Ramachandran K. M., Sumith Satheendran S.*</i></p>
	15:00 – 15:15	<p>Discern constituents influencing the interoperability of spatial data in relevance to the national spatial data infrastructure (NSDI) of Sri Lanka</p> <p><i>K.A.S.Y. Kasthuriarachchi*, N.M.P. M. Piyasena, P.A.D. V. Vithanage</i></p>
	15:15 – 15:30	<p>Fit-for-purpose solutions for problems associated with land use planning and land consolidation: a case study in Wewathenna GN division, Sri Lanka</p> <p><i>Y.G.D.P.K.Thennakoon*, N.H.Liyanage, P.A.D.V.Vithanage, J.S.R. De Silva, S.L.Witharana, N.M.P.M.Piyasena</i></p>
	15:30 – 15:45	<p>Impact of Land Tenure Security on Real Estate Investment in Bandarawela Municipal Council Area for the Development of the Tourism Industry</p> <p><i>W.D.R.V. Walisinghe*, J.S.R.De Silva, P.A.D.V.Vithanage, S.L.Witharana, N.M.P.M.Piyasena</i></p>
	15:45 – 16:00	<p>A review: Performance evaluation of low-cost receivers under different environments for cadastral surveys</p>

		<i>S.L.Witharana* , N.M.P.M.Piyasena, P.A.D.V.Vithanage , A.I.U. De Silva, M.A.T.S.Munasinghe</i>
16:00 – 16:15	Generating the High-Resolution Orthophotos and Digital Elevation Model(DTM) for Construction of Salinity Barrier Across Nilwala River	<i>P.A.D.V.Vithanage* , S.L.Witharana, J.S.R.De Silva, M.A.T.S.Munasinghe, A.I.U.De Silva N.M.P.M.Piyasena</i>
16:15 – 16:30	Digital India Land Records Management Information System using Open Source GIS Product Bhunaksha	<i>Ganesh Khadanga* , D.S Venkatesh, M.V. Sunish Kumar, Shanmuga Sundari S, Surendranath Karupothu, Saurav Chaudhary, Seemanteeni Sengupta, Inder Pal Singh Sethi, D.C Misra</i>

Thursday, 01<sup>st</sup> December

<p>Thursday, 01<sup>st</sup> December 08:30 – 11:00 Sri Lankan time (GMT+5:30) Online</p>	<p>Technical Session: Hydrography</p> <p>Chair: Dr. S.U.P.Jinadasa</p> <p>Rapporteur: Dr. Eranda Gunathilaka</p>	
	08:30 – 09:15	<p><b>Plenary Speech by Sr Dr. Mohd Razali Mahmud</b></p> <p><i>Professor, Faculty of Built Environment and Surveying, University Teknologi Malaysia (UTM)</i></p>
	09:15 – 09:30	<p>Imagery derived bathymetry: facilitating emerging post covid-19 demands in coastal bathymetric mapping</p> <p><i>Kelvin Tang Kang Wee*, Huang Lei, Alhaji Hussaini, Tan Chee Wee</i></p>
	09:30 – 09:45	<p>North Celtic Sea Survey: A Green Rebel's hydrographic, geophysical and geological characterisation project</p> <p><i>Godinho, J.*</i></p>
	09:45 – 10:00	<p>Reservoir sedimentation assessment using sub-bottom profiler at Samanalawewa reservoir</p> <p><i>P.V.D. Tharanga*, S.R.C. Ranaweera, Y.M.R.N. Kumari, R.K.A. Ariyaratna, W.A.A.P. Wijesundara, R.D.M.I. Rathnayake, M.D.E.K. Gunathilaka</i></p>
	10:00 – 10:15	<p>Geophysical surveys undertaken for Thilamle bridge project</p> <p><i>Firdous Hussain*</i></p>
	10:15 – 10:30	<p>Application of USV to Obtain High-quality Bathymetry: Case Study of Coastline Survey of the Triangle Island Situated South of China</p> <p><i>Zhihong Xie*, Ran Zhang</i></p>
	10:30 – 10:45	<p>Coral reefs and blue economy</p> <p><i>M F M Fairoz*</i></p>
	10:45 – 11:00	<p>Benefits of the Crowdsourced Bathymetry (CSB) in the Hydrospatial Domain and the Emerging Sustainable Blue Economy</p> <p><i>Rathnayake MCK*, Muththetupita Gamaethi, RDVP Jayarathna</i></p>

<p>Thursday, 01<sup>st</sup> December 11:15 – 13:30 Sri Lankan time (GMT+5:30) Online</p>	<p>Technical Session: Integrated Spatial Science Applications Chair: Prof. Saman Koswatta Rapporteur: Ms. Kalani Illeperuma</p>	
	11:15 – 12:00	<p><b>Plenary Speech by Eng. (Dr.) Sanath Panawennage</b></p> <p><i>Director General &amp; CEO, Arthur C Clarke Institute for Modern Technologies, Sri Lanka.</i></p>
	12:00 – 12:15	<p>Sustainable marine aquaculture development for Sri Lanka</p> <p><i>Cara Jeffery*, M F M Fairoz</i></p>
	12:15 – 12:30	<p>Assessment of ecological disturbance on Indian sundarbans with special reference to Amphan cyclone by using geospatial technology</p> <p><i>Sreelakshmi Prakash, Abin Varghese*, Amrutha A.S, Baiju K.R</i></p>
	12:30 – 12:45	<p>Urban land use change detection in Sri Jayewardenepura Kotte municipal council, Sri Lanka</p> <p><i>Kaushalya G.N.*, Wijeratne V.P.I.S.</i></p>
	12:45 – 13:00	<p>A feasibility analysis of mobile phone camera images for 3D information</p> <p><i>S.Jeyanthan*, H.A. Nalani</i></p>
	13:00 – 13:15	<p>Watershed Management Prioritization in Paddy Land Uses: A Case Study in Hungamala Ela Sub-watershed in Mahaweli Basin</p> <p><i>Withanage N.S.*, Abeysekara J.M., Priyanke N., Jayaweera S.D.</i></p>
	13:15 – 13:30	<p>Development of a Symbol Catalogue Application Tool for Efficient Compilation of Paper Charts into Electronic Navigational Charts</p> <p><i>Fernando P.B.A.* , Lewis S.N., Perera A.N.D., Gunathilaka M.D.E.K.</i></p>
<p>Thursday, 01<sup>st</sup> December 14:00 – 16:30 Sri Lankan time (GMT+5:30) Online</p>	<p>Technical Session: Remote Sensing &amp; GIS Chair: Dr. Lal Muthuwatta Rapporteur: Dr. Nalani Hettiarachchi</p>	
	14:00 – 14:45	<p><b>Plenary Speech by Prof. Dr. Ir. Sander Oude Elberink</b></p> <p><i>Assistant professor at the department of Earth Observation Science (EOS), Faculty of Geoinformation Science and Earth Observation (ITC), University of Twente, the Netherlands</i></p>
	14:45 – 15:00	<p>Derive hydrological inferences through GIS-based drainage morphometric analysis in Kehelgamu oya drainage basin of Sri Lanka</p> <p><i>MGBK Jayarathna, RMGN Rajapaksha*, UDD Adhikari</i></p>
	15:00 – 15:15	<p>Monitoring the seasonal Water Quality variations based on Remote Sensing in Urban Lakes, Sri Lanka</p> <p><i>H.B.T.P. Jayathilaka*, V.P.I.S. Wijeratne</i></p>

	15:15 – 15:30	Determination of Potential Runoff Coefficient using GIS; Case Study: Kalutara District  <i>Dilanganee W.P.S*</i> , <i>Illeperuma I.A.K.S</i>
	15:30 – 15:45	Analysis of Changes in Coastal Vegetation Cover in Gampaha District, Sri Lanka Using Remote Sensing and GIS Technology  <i>A.G.C. Lakshani*</i> , <i>K.P.G.K.P. Guruge</i> , <i>E.P.D.N. Thilakarathne</i>
	15:45 – 16:00	Modelling urban heat island with Landsat images and LIDAR data set  <i>Esra Şengün*</i> , <i>Hossein Arefi</i> , <i>Samet Aksoy</i> , <i>Peyman Taheri</i>
	16:00 – 16:15	Deep Learning based Archaeological Object Detection from Drone Imagery  <i>Jayaratne I.T.P.*</i> , <i>Koswatte S.</i>
	16:15 – 16:30	Top 100 Most Cited Papers of the Journal “Remote Sensing of Environment”: A Scientometric Analysis  <i>Renjith V R*</i> , <i>Sudhi S Vijayan</i> , <i>Pradeepkumar A P</i>

\* Presenting author

**Join the symposium online via zoom:**

<https://learn.zoom.us/j/64620487201?pwd=REwrODQ2OUpiNTEzZemg0QXVkvVlVMUT09>

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Dr. H.M.I. Prasanna  
Chair  
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