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Submergence tolerance and tolerance mechanism: A study on traditional and improved rice genotypes at the seedling stage under complete submergence stress in Sri Lanka (Shyamalee HAPA & Ranawake AL) **51**: 533-546 (2023)

Improved rice

Screening eighty traditional and improved rice genotypes in Sri Lanka for salinity tolerance at the seedling stage in Yoshida solution (Shyamalee HAPA & Ranawake AL) **51**: 597-614 (2023)

Infrastructure development

Multiscale analysis of land use and land cover changes in Sri Lanka by remote sensing: the impacts of post-war infrastructure development in the last 20 Years (2002-2022) (Andrieu J, Anupama K, Bautes N, Benabou S, Crook O-J, Gunasekara V, Jayasingam T, Jayathilaka C, Kodikara KAS, Lombard F, Madarasinghe SK, Mathiventhan T, Muthusankar G, Premathilake R, Proisy C, Vanniasinkam N, Weeratunge N, Wickramaarachchi N & Mathevet R) **51**: 675-688 (2023)

Insulations

Assessment of transverse thermal conductivity of coir fibre using experimental, analytical, and numerical methods (Chamath LG, Simal LKT & Sewvandi GA) **51**: 113-127 (2023)

Internal transcribed spacer (ITS)

Rediscovery, identity, and conservation strategies of a critically endangered endemic plant, *Hedyotis uinquinervia* Thwaites (Rubiaceae) in Sri Lanka (Gunaratne A, Harasgama HDRVL, Wijewickrama T, Attanayake AS, Attanayake RN & Ratnayake RMCS) **51**: 505-517 (2023)

Inverted PSCs

Efficiency boost of inverted polymer solar cells using electrodeposited n-type Cu₂O electrons selective transport layers (ESTLs) (Wanninayake WTMAPK, Namawardana DGKK, Wanigasekara RMG, Jayathilaka KMDC, Wijesundera RP, Siripala W & Malik MI) **51**: 253-261 (2023)

In-vivo

Single and combined effect of fluoride and hardness of drinking water on nephrotoxicity: in-vivo study using Wistar rats as an animal model (Dilrukshi KT, Beneragama DH, Suresh TS, Wanigasuriya JKP and Manage PM) **51**: 519-532 (2023)

Irrigation methods

Distribution of phosphorus and potassium in selected rice cultivated soils and their accumulation in rice grains under farmer-managed field conditions in Sri Lanka (Suriyagoda LDB, Neththasinghe NASA, Chandrasekara EDCT, Ekanayake EMS, Dissanayaka DMSB, Ariyaratne M & Marambe B) **51**: 493-504 (2023)

Kahatagaha graphite mine

Mechanically exfoliated graphene from Sri Lankan vein graphite for field effect transistor application (Thanishaichelvan M, Joy Karunya M & Sutharsini U) **51**: 105-112 (2023)

Kernel density maps

Spatial distribution of heavy metals in surface sediments of the Kalametiya Lagoon in southern Sri Lanka: Insights into the pollution status and socio-economic interactions (Kodikara KAS, Hoessein T, De Silva PMCS, Ranasinghe P, Somasiri HPPS, Madarasinghe SK, Gunathilaka DUV, Ranawaka D, Danae M, Andrieu J & Dahdouh-Guebas F) **51**: 401-411 (2023)

Kernel

Study on compositional changes of king coconut (*Cocos nucifera* var. *aurantiaca*) water and kernel during maturation and evaluation of optimum quality characteristics targeting commercial applications (Jayasinghe MD, Gunasekara MMNP, Perera MGDS, Karunarathna KDMS, Chandrasiri GU & Hewajulige IGN) **51**: 273-285 (2023)

King coconut water

Study on compositional changes of king coconut (*Cocos nucifera* var. *aurantiaca*) water and kernel during maturation and evaluation of optimum quality characteristics targeting commercial applications (Jayasinghe MD, Gunasekara MMNP, Perera MGDS, Karunarathna KDMS, Chandrasiri GU & Hewajulige IGN) **51**: 273-285 (2023)

Kurtosis

A kurtosis-based parameter for classifying elliptical hollow sections under bending (Nanayakkara KIU & Dias WPS) **51**: 615-628 (2023)

Laboratory model setup

Effect of degree of saturation on pullout resistance of soil nailing in lateritic soil (Fernando KASN & Priyankara NH) **51**: 237-251 (2023)

Land cover distribution

Spatial and temporal changes of land use land cover distribution in selected sites of the southern coastal zone of Sri Lanka (Wijesundara WMIC, Gunathilaka DUV, Madarasinghe SK, Andrieu J, Muthusankar G, Kankanamge NR & Kodikara KAS) **51**: 341-357 (2023)

Laterite

Removal of methylene blue from aqueous solution using raw laterite: an adsorption study (Gunathilake BM, Jayawardana D, Pupulewatte PGH, Dissanayake S & Manage PM) **51**: 53-67 (2023)

Leaf morphology

Beyond aesthetics: Integration of textural groups of tropical ornamental shrubs into urban planting designs (Yakandawala K, Bandara A, Yakandawala D & Abeynayake R) **51**: 463-477 (2023)

Leaf texture

Beyond aesthetics: Integration of textural groups of tropical ornamental shrubs into urban planting designs (Yakandawala K, Bandara A, Yakandawala D & Abeynayake R) **51**: 463-477 (2023)

Leucas diffusa

Two new additions and one confirmation of the occurrence of Lamiaceae (Lamiales) species from Northern dry zone in Sri Lanka (Jayasinghe HD & Gamhewa HT) **51**: 175-181 (2023)

Liquefaction

Estimation of soil liquefaction potential in Colombo Port City (Sri Lanka) using several design earthquakes (Ilangakoon IACC & Athapaththu AMRG) **51**: 129-148 (2023)

Logistic regression

Socio-demographic and behavioural factors associated with prominent misconceptions of HIV/aIDS transmission among ever married women in Sri Lanka: an application of modelling correlated binary outcomes using a bridge distribution function (De Alwis NM, Withanage N, Jayasinghe CL & Ananda S) **51**: 689-701 (2023)

LULCC

Multiscale analysis of land use and land cover changes in Sri Lanka by remote sensing: the impacts of post-war infrastructure development in the last 20 Years (2002-2022) (Andrieu J, Anupama K, Bautes N, Benabou S, Crook O-J, Gunasekara V, Jayasingam T, Jayathilaka C, Kodikara KAS, Lombard F, Madarasinghe SK, Mathiventhana T, Muthusankar G, Premathilake R, Proisy C, Vanniasinkam N, Weeratunge N, Wickramaarachchi N & Mathevet R) **51**: 675-688 (2023)

LULC

Land-use and land cover changes along the coastal belt of Hambantota district, southern Sri Lanka, over the period 1996-2017 (Madarasinghe SK, Yapa KKAS, Udayakantha PMP, & Satyanarayana B) **51**: 703-719 (2023)

Mannar basin

Identification of depositional features in the Albian and Aptian sections over the hydrocarbon exploration block M2 on the Mannar Basin, Sri Lanka (Munasinghe TM, Premaratne U & Weerasinghe DA) **51**: 263-272 (2023)

Mapping

Spatial and temporal changes of land use land cover distribution in selected sites of the southern coastal zone of Sri Lanka (Wijesundara WMIC, Gunathilaka DUV, Madarasinghe SK, Andrieu J, Muthusankar G, Kankanamge NR & Kodikara KAS) **51**: 341-357 (2023)

Marker ABUOP0003

Assessment of submergence stress responses and mining allelic variations of submergence tolerance gene Sub1A in Sri Lankan rice germplasm (Kariyawasam T, Nanayakkara D, Sumanarathna A, Weerasinghe D, Suriyagoda L & Jayatilake D) **51**: 81-91 (2023)

Metabolic pathway

Insights into the ecological roles of assembling genomes for stimulated methanogenic archaea Methanoculleus in coal Seams (BJ Liu and Y Li) **51**: 149-158 (2023)

Metagenome assembly

Insights into the ecological roles of assembling genomes for stimulated methanogenic archaea Methanoculleus in coal Seams (BJ Liu and Y Li) **51**: 149-158 (2023)

Metaphoric visualization

Secure Code City: 3-dimensional visualization of software security facets (Wijesiriwardana C, Wimalaratne P, Abeyasinghe T, Shalika S, Ahmed N & Mufarrij M) **51**: 437-450 (2023)

Methanogenesis

Insights into the ecological roles of assembling genomes for stimulated methanogenic archaea Methanoculleus in coal Seams (BJ Liu and Y Li) **51**: 149-158 (2023)

Methylene blue

Removal of methylene blue from aqueous solution using raw laterite: an adsorption study (Gunathilake BM, Jayawardana D, Pupulewatte PGH, Dissanayake S & Manage PM) **51**: 53-67 (2023)

Misconceptions on disease transmission

Socio-demographic and behavioural factors associated with prominent misconceptions of HIV/AIDS transmission among ever married women in Sri Lanka: an application of modelling correlated binary outcomes using a bridge distribution function (De Alwis NM, Withanage N, Jayasinghe CL & Ananda S) **51**: 689-701 (2023)

Mobility

Mechanically exfoliated graphene from Sri Lankan vein graphite for field effect transistor application (Thanahaichelvan M, Joy Karunya M & Sutharsini U) **51**: 105-112 (2023)

Model-assisted

A comparison of model parameter estimation methods for A comparison of model parameter estimation methods for complex survey survival data (Jayamanne IT, Ramanayake A & Jayatilake RV) **51**: 93-104 (2023)

Molecular docking

Natural α -glucosidase inhibitors from selected medicinal plants in Malaysia (Liew SY, Sivasothy Y, Shaikh NN, Javaid K, Isa DM, Lee VS, Choudhary MI & Awang K) **51**: 299-309 (2023)

Molecular phylogeny

Molecular and phenotypic characterization of *Colletotrichum plurivorum* and *Colletotrichum musae* causing banana anthracnose disease in the Central Province of Sri Lanka (Kurera WMS, Adikaram NKB, Yakandawala DMD, Maharachchikumbura SS, Jayasinghe L & Samarakoon K) **51**: 311-326 (2023)

Moments

On recurrence relations for moments of dual generalized order statistics for a general transmuted power function distributions with characterizations (Shahbaz SH & Shahbaz MQ) **51**: 37-51 (2023)

Morphometric analysis

Beyond aesthetics: Integration of textural groups of tropical ornamental shrubs into urban planting designs (Yakandawala K, Bandara A, Yakandawala D & Abeynayake R) **51**: 463-477 (2023)

Multiday boats

Prevalence of histamine forming bacteria in selected nodes of the supply chain of Sri Lankan Yellowfin tuna (Ginigaddarage PH, Ganegama Arachchi GJ, Ariyawansa KWS & Nanayakkara CM) **51**: 215-223 (2023)

***Murraya koenigii* L.**

Probiotic potential of bacterial endophytes isolated from leaves of *Murraya koenigii* L. (Bandara AC, Abayasekara CL, Karunaratne AM & Panagoda GJ) **51**: 389-400 (2023)

Nanoparticle formulation

pH-dependent release properties of curcumin encapsulated alginate nanoparticles in skin and artificial sweat (Shakoor IF, Pamunuwa GK & Karunaratne DN) **51**: 413-427 (2023)

Nauclea subdita

Natural α -glucosidase inhibitors from selected medicinal plants in Malaysia (Liew SY, Sivasothy Y, Shaikh NN, Javaid K, Isa DM, Lee VS, Choudhary MI & Awang K) **51**: 299-309 (2023)

N-Cu₂O

Efficiency boost of inverted polymer solar cells using electrodeposited n-type Cu₂O electrons selective transport layers (ESTLs) (Wanninayake WTMAPK, Namawardana DGKK, Wanigasekara RMG, Jayathilaka KMDC, Wijesundera RP, Siripala W & Malik MI) **51**: 253-261 (2023)

NDVI

Multiscale analysis of land use and land cover changes in Sri Lanka by remote sensing: the impacts of post-war infrastructure development in the last 20 Years (2002-2022) (Andrieu J, Anupama K, Bautes N, Benabou S, Crook O-J, Gunasekara V, Jayasingam T, Jayathilaka C, Kodikara KAS, Lombard F, Madarasinghe SK, Mathiventhan T, Muthusankar G, Premathilake R, Proisy C, Vanniasinkam N, Weeratunge N, Wickramaarachchi N & Mathevet R) **51**: 675-688 (2023)

Nephrotoxic effect

Single and combined effect of fluoride and hardness of drinking water on nephrotoxicity: in-vivo study using Wistar rats as an animal model (Dilrukshi KT, Beneragama DH, Suresh TS, Wanigasuriya JKP and Manage PM) **51**: 519-532 (2023)

New records

Two new additions and one confirmation of the occurrence of Lamiaceae (Lamiales) species from Northern dry zone in Sri Lanka (Jayasinghe HD & Gamhewa HT) **51**: 175-181 (2023)

NID1

Whole exome sequencing coupled with in silico functional analysis identified NID1 as a novel candidate gene causing neuro-psychiatric disorder in a Pakistani family (Muzammal M, Ahmad S, Ali MZ, Fatima S, Abbas S, Khan J, Ullah H, Shah W, Duan L & Khan MA) **51**: 643-650 (2023)

Novel candidate

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Number of fruits per vine

Genetic control of fruit length, external colour and number of fruits per vine in bitter melon studied using *Charantia* × *Muricata* crosses (Kumari HMS, Nisansala PU, Wijewardhana EP, Sumanasinghe DP, Abeysiriwardena DS De Z & Kusalani TLCN) **51**: 589-595 (2023)

Optical logic gate

Simulation and numerical analysis of SOA- based all optical NAND gate for high data rate communication (Anusooya V, Ponmalar S, Manikandan MSK & Gobalakrishnan S) **51**: 225-235 (2023)

Optimization algorithms

Temperature control in an exothermic continuous stirred tank reactor (Rani VA, Guna G, Prabhakaran D & Thirumarimurugan M) **51**: 21-35 (2023)

Ornamental shrubs

Beyond aesthetics: Integration of textural groups of tropical ornamental shrubs into urban planting designs (Yakandawala K, Bandara A, Yakandawala D & Abeynayake R) **51**: 463-477 (2023)

Orthosiphon pallidus

Two new additions and one confirmation of the occurrence of Lamiaceae (Lamiales) species from Northern dry zone in Sri Lanka (Jayasinghe HD & Gamhewa HT) **51**: 175-181 (2023)

Oviposition-site deprivation

Effect of oviposition-site deprivation on reproductive performance and life history parameters of dengue vector *Aedes aegypti* (Gunathilaka RAKM & Ganesharachchi GAS) **51**: 3-11 (2023)

P and K contents

Distribution of phosphorus and potassium in selected rice cultivated soils and their accumulation in rice grains under farmer-managed field conditions in Sri Lanka (Suriyagoda LDB, Neththasinghe NASA, Chandrasekara EDCT, Ekanayake EMS, Dissanayaka DMSB, Ariyaratne M & Marambe B) **51**: 493-504 (2023)

P3HT-PCBM

Efficiency boost of inverted polymer solar cells using electrodeposited n-type Cu₂O electrons selective transport layers (ESTLs) (Wanninayake WTM, Namawardana DGKK, Wanigasekara RMG, Jayathilaka KMDC, Wijesundera RP, Siripala W & Malik MI) **51**: 253-261 (2023)

PAHs

Polycyclic aromatic hydrocarbons and food safety: A review (U Samarajeewa) **51**: 185-204 (2023)

Pakistani family

Whole exome sequencing coupled with in silico functional analysis identified NID1 as a novel candidate gene causing neuro-psychiatric disorder in a Pakistani family (Muzammal M, Ahmad S, Ali MZ, Fatima S, Abbas S, Khan J, Ullah H, Shah W, Duan L & Khan MA) **51**: 643-650 (2023)

Pathogenicity

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Percentile estimator

Error detection through modified phase II process monitoring under different classical estimators (Jabeen R & Zaka A) **51**: 479-491 (2023)

Pesticides

Spatial distribution of heavy metals in surface sediments of the Kalametiya Lagoon in southern Sri Lanka: Insights into the pollution status and socio-economic interactions (Kodikara KAS, Hoessein T, De Silva PMCS, Ranasinghe P, Somasiri HPPS, Madarasinghe SK, Gunathilaka DUV, Ranawaka D, Danae M, Andrieu J & Dahdouh-Guebas F) **51**: 401-411 (2023)

Pharmacokinetics

Quantification of metabolite cinnamic acid of cinnamon (*Cinnamomum zeylanicum*) in human plasma (Pigera S, Ranasinghe P, Kaumal MN & Galappaththy P) **51**: 13-19 (2023)

Physico-chemical changes

Study on compositional changes of king coconut (*Cocos nucifera* var. *aurantiaca*) water and kernel during maturation and evaluation of optimum quality characteristics targeting commercial applications (Jayasinghe MD, Gunasekara MMNP, Perera MGDS, Karunarathna KDSM, Chandrasiri GU & Hewajulige IGN) **51**: 273-285 (2023)

Physicochemical properties

Comparison of physicochemical and sensory properties of African butter seed (*Pentadesma butyracea*) and cocoa fats for potential use in future food applications (Jayathissa NPS, Silva ABG, Madhujith WMT, De Silva PGSM, Jayatissa R) **51**: 69-79 (2023)

Physicochemical properties

Preliminary study on surface phytoplankton assemblages and physicochemical parameters, off the west and south-west coasts of Sri Lanka (Jayasiri HB) **51**: 359-372 (2023)

Phytoplankton

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Planning

Land-use and land cover changes along the coastal belt of hambantota district, southern Sri Lanka, over the period 1996-2017 (Madarasinghe SK, Yapa KKAS, Udayakantha PMP, & Satyanarayana B) **51**: 703-719 (2023)

Polymer solar cells

Efficiency boost of inverted polymer solar cells using electrodeposited n-type Cu₂O electrons selective transport layers (ESTLs) (Wanninayake WTMAPK, Namawardana DGKK, Wanigasekara RMG, Jayathilaka KMDC, Wijesundera RP, Siripala W & Malik MI) **51**: 253-261 (2023)

Polymerase chain reaction

Pulsed-field gel electrophoresis typing and molecular characterization of *Listeria monocytogenes* isolates in raw milk samples from Polonnaruwa District, Sri Lanka (Wijendra WAS, Kaushalya AGGK, Kuruppuarachchi KGR, Harshani HBC, Fonseka WASI & Ramesh R) **51**: 547-553 (2023)

Post-stratification

A comparison of model parameter estimation methods for A comparison of model parameter estimation methods for complex survey survival data (Jayamanne IT, Ramanayake A & Jayatillake RV) **51**: 93-104 (2023)

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On recurrence relations for moments of dual generalized order statistics for a general transmuted power function distributions with characterizations (Shahbaz SH & Shahbaz MQ) **51**: 37-51 (2023)

Pre-monsoon

Variations of pre-monsoon season related atmospheric parameters over Kakinada region (Vishnu TR, Kumar KS, Ahammad SKH, Kumar GNS, Umakanth N, Rao MC & Krishna S) **51**: 555-569 (2023)

Probiotics

Probiotic potential of bacterial endophytes isolated from leaves of *Murraya koenigii* L. (Bandara AC, Abayasekara CL, Karunaratne AM & Panagoda GJ) **51**: 389-400 (2023)

Pullout resistance

Effect of degree of saturation on pullout resistance of soil nailing in lateritic soil (Fernando KASN & Priyankara NH) **51**: 237-251 (2023)

Pulsotypes

Pulsed-field gel electrophoresis typing and molecular characterization of *Listeria monocytogenes* isolates in raw milk samples from Polonnaruwa District, Sri Lanka (Wijendra WAS, Kaushalya AGGK, Kuruppuarachchi KGR, Harshani HBC, Fonseka WASI & Ramesh R) **51**: 547-553 (2023)

R2R3-MYB transcription factor

Does an R2R3-MYB transcription factor affect antherium spathe colour variation via regulation of vacuolar pH? (Jayapada NVT, Fukai S, Geekiyanage S) **51**: 629-641 (2023)

Release kinetic mechanisms

pH-dependent release properties of curcumin encapsulated alginate nanoparticles in skin and artificial sweat (Shakoor IF, Pamunuwa GK & Karunaratne DN) **51**: 413-427 (2023)

Reproductive performance

Effect of oviposition-site deprivation on reproductive performance and life history parameters of dengue vector *Aedes aegypti* (Gunathilaka RAKM & Ganesharachchi GASM) **51**: 3-11 (2023)

Rhamnaceae

In-vitro wound healing potential of *Ziziphus oenoplia* (L.) Miller (Samarasinghe WMP, Jayawardena KH, Ranasinghe C, Somaratne S & Gunaherath GMKB) **51**: 327-340 (2023)

Rice

Assessment of submergence stress responses and mining allelic variations of submergence tolerance gene Sub1A in Sri Lankan rice germplasm (Kariyawasam T, Nanayakkara D, Sumanaratna A, Weerasinghe D, Suriyagoda L & Jayatilake D) **51**: 81-91 (2023)

Rice soils and grains

Distribution of phosphorus and potassium in selected rice cultivated soils and their accumulation in rice grains under farmer-managed field conditions in Sri Lanka (Suriyagoda LDB, Neththasinghe NASA, Chandrasekara EDCT, Ekanayake EMS, Dissanayaka DMSB, Ariyaratne M & Marambe B) **51**: 493-504 (2023)

RMS amplitude

Identification of depositional features in the Albian and Aptian sections over the hydrocarbon exploration block M2 on the Mannar Basin, Sri Lanka (Munasinghe TM, Premaratne U & Weerasinghe DA) **51**: 263-272 (2023)

ROS inhibitors

Synthesis and biological evaluation of gallic acid esters as phagocyte oxidative burst inhibitors (Baheej MAA, Haniffa HM, Siddiqui H & Jabeen A) **51**: 429-435 (2023)

Rotation capacity

A kurtosis-based parameter for classifying elliptical hollow sections under bending (Nanayakkara KIU & Dias WPS) **51**: 615-628 (2023)

Rubiaceae

Rediscovery, identity, and conservation strategies of a critically endangered endemic plant, *Hedyotis uinquinervia* Thwaites (Rubiaceae) in Sri Lanka (Gunaratne A, Harasgama HDRVL, Wijewickrama T, Attanayake AS, Attanayake RN & Ratnayake RMCS) **51**: 505-517 (2023)

Salinity tolerance

Screening eighty traditional and improved rice genotypes in Sri Lanka for salinity tolerance at the seedling stage in Yoshida solution (Shyamalee HAPA & Ranawake AL) **51**: 597-614 (2023)

Satellite altimetry

Sea level variability at Colombo, Sri Lanka, inferred from the conflation of satellite altimetry and tide gauge measurements (Prasanna HMI, Gunathilaka MDEK & Iz HB) **51**: 205-214 (2023)

Satellite imagery

Spatial and temporal changes of land use land cover distribution in selected sites of the southern coastal zone of Sri Lanka (Wijesundara WMIC, Gunathilaka DUV, Madarasinghe SK, Andrieu J, Muthusankar G, Kankanamge NR & Kodikara KAS) **51**: 341-357 (2023)

Scratch wound assay (SWA)

In-vitro wound healing potential of *Ziziphus oenoplia* (L.) Miller (Samarasinghe WMP, Jayawardena KH, Ranasinghe C, Somaratne S & Gunaherath GMKB) **51**: 327-340 (2023)

Sea-level rise

Sea level variability at Colombo, Sri Lanka, inferred from the conflation of satellite altimetry and tide gauge measurements (Prasanna HMI, Gunathilaka MDEK & Iz HB) **51**: 205-214 (2023)

Sea-level trend and acceleration

Sea level variability at Colombo, Sri Lanka, inferred from the conflation of satellite altimetry and tide gauge measurements (Prasanna HMI, Gunathilaka MDEK & Iz HB) **51**: 205-214 (2023)

Security vulnerabilities

Secure Code City: 3-dimensional visualization of software security facets (Wijesiriwardana C, Wimalaratne P, Abeysinghe T, Shalika S, Ahmed N & Mufarrij M) **51**: 437-450 (2023)

Sediments

Risk assessment of heavy metals in the freshwater lake sediments around Eppawala phosphate deposit, Sri Lanka (Batapola NM, Dushyantha NP, Ratnayake NP, Premasiri HMR, Panagoda H, Jayawardena CL, Chandrajith R, Ilankoon IMSK, Rohitha LPS, Ratnayake AS, Koongolla JB, Abeysinghe AMBK, Dissanayake DMDOK & Ratnayake RMP) **51**: 573-587 (2023)

Seedling stage

Submergence tolerance and tolerance mechanism: A study on traditional and improved rice genotypes at the seedling stage under complete submergence stress in Sri Lanka (Shyamalee HAPA & Ranawake AL) **51**: 533-546 (2023)

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Seismic data

Identification of depositional features in the Albian and Aptian sections over the hydrocarbon exploration block M2 on the Mannar Basin, Sri Lanka (Munasinghe TM, Premarathne U & Weerasinghe DA) **51**: 263-272 (2023)

Semiconductor optical amplifier

Simulation and numerical analysis of SOA- based all optical NAND gate for high data rate communication (Anusooya V, Ponmalar S, Manikandan MSK & Gobalakrishnan S) **51**: 225-235 (2023)

Sensitivity Index

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Sensory properties

Comparison of physicochemical and sensory properties of African butter seed (*Pentadesma butyracea*) and cocoa fats for potential use in future food applications (Jayathissa NPS, Silva ABG, Madhujith WMT, De Silva PGSM, Jayatissa R) **51**: 69-79 (2023)

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Pulsed-field gel electrophoresis typing and molecular characterization of *Listeria monocytogenes* isolates in raw milk samples from Polonnaruwa District, Sri Lanka (Wijendra WAS, Kaushalya AGGK, Kuruppuarachchi KGR, Harshani HBC, Fonseka WASI & Ramesh R) **51**: 547-553 (2023)

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Short memory method

Comparative analysis of three memory selection methods for time integration of Fractional Reaction-Diffusion Equations (Somathilake LW) **51**: 373-385 (2023)

Simplified empirical procedure

Estimation of soil liquefaction potential in Colombo Port City (Sri Lanka) using several design earthquakes (Ilangakoon IACC & Athapaththu AMRG) **51**: 129-148 (2023)

Sinhalese inscriptions

Chronological attribution of Sinhalese inscriptions using deep learning approaches (Heenkenda HMSCR & Fernando TGI) **51**: 451-462 (2023)

Skin delivery

pH-dependent release properties of curcumin encapsulated alginate nanoparticles in skin and artificial sweat (Shakoor IF, Pamunuwa GK & Karunaratne DN) **51**: 413-427 (2023)

Slenderness

A kurtosis-based parameter for classifying elliptical hollow sections under bending (Nanayakkara KIU & Dias WPS) **51**: 615-628 (2023)

Smoke curing

Polycyclic aromatic hydrocarbons and food safety: A review (U Samarajeewa) **51**: 185-204 (2023)

Software engineering

Secure Code City: 3-dimensional visualization of software security facets (Wijesiriwardana C, Wimalaratne P, Abeyasinghe T, Shalika S, Ahmed N & Mufarrij M) **51**: 437-450 (2023)

Software security

Secure Code City: 3-dimensional visualization of software security facets (Wijesiriwardana C, Wimalaratne P, Abeyasinghe T, Shalika S, Ahmed N & Mufarrij M) **51**: 437-450 (2023)

Soil moisture

Variations of pre-monsoon season related atmospheric parameters over Kakinada region (Vishnu TR, Kumar KS, Ahammad SKH, Kumar GNS, Umakanth N, Rao MC & Krishna S) **51**: 555-569 (2023)

Soil nailing

Effect of degree of saturation on pullout resistance of soil nailing in lateritic soil (Fernando KASN & Priyankara NH) **51**: 237-251 (2023)

South and East Coast

Multiscale analysis of land use and land cover changes in Sri Lanka by remote sensing: the impacts of post-war infrastructure development in the last 20 Years (2002-2022) (Andrieu J, Anupama K, Bautes N, Benabou S, Crook O-J, Gunasekara V, Jayasingam T, Jayathilaka C, Kodikara KAS, Lombard F, Madarasinghe SK, Mathiventhan T, Muthusankar G, Premathilake R, Proisy C, Vanniasinkam N, Weeraratunge N, Wickramaarachchi N & Mathevet R) **51**: 675-688 (2023)

Southern coastal zone

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