Project titles E18

Project Number (C/18/)	Supervisor's Name	Project title	Student
Water & Environmental			
C/18/01	Prof. W.M.S.B. Weerakoon	Three-dimensional modelling of flow in a river confluence	E/18/053
			E/18/074
C/18/02		Two-dimensional flow computation in a curved bend with lateral inflow and training levee	E/18/042
			E/18/043
C/18/03	Prof. G.B.B. Herath	Effect of bulking agent in drying screw-press dewatered wastewater sludge Co Supervisor Dr. GMPR Weerakoon	E/18/194
			E/18/284
C/18/04		AnMBR for industrial effluent treatment Co Supervisor Dr. D S B Navaratne (ITCGU)	E/18/314
			E/18/401
C/18/05		Reduce Inhibitions during recovery of phosphorus and nitrogen from anaerobically treated wastewater	E/18/261
			E/18/067
C/18/06	Prof. K.B.S.N. Jinadasa	Environmental Management in Industrial Parks	E/18/328
			E/18/336
C/18/07		Water Quality Management in Urban Lakes	E/18/197
			E/18/335
C/18/08	Prof (Ms). K.G.N. Nanayakkara	Computational Fluid Dynamic Modelling of Adsorption Columns for Contaminant removal from water.	E/18/380
			E/18/274
C/18/09		Microplastics removal using membrane-assisted electrocoagulation technology	E/18/279
			E/18/040
C/18/10		Machine learning for predicting coagulant dose in drinking water plants	E/18/175
			E/18/209
C/18/11	Dr (Ms). G.M.P.R. Weerakoon	Evaluation of the impact on water quality of Mid-canal after the implementation of greater Kandy sewerage project	E/18/343
			E/18/307
C/18/12		Measurement of Pharmaceuticals and Personal Care Products (PPCPs) in hospital wastewaters. (Co supervisor Prof. GBB Herath)	E/18/286
			E/18/265
C/18/13		Vertical Subsurface Flow (VSSF) constructed wetlands for wastewater treatment: Mitigation of clogging effect	E/18/410
			E/18/192
C/18/14	Dr (Ms). W.C.T.K. Gunawardana	Investigating the accumulation of microplastics and heavy metals on urban paved surfaces	E/18/348
			E/18/015
C/18/15		Assessment of the drainage systems performance using stormwater management model (KMC collaboration)	E/18/008
			E/18/272
C/18/16		Assessment of performance of Pre-filter media in water treatment	E/18/252
			E/18/337
C/18/17	Dr. R.M.L.D. Ratnayake	Eco-Friendly Cement Mortar with Water Treatment Plant Sludge	E/18/084
			E/18/355
C/18/18		Computer application to improve the performances Wastewater Treatment Plants	E/18/082
			E/18/047
C/18/19	Dr. P. Neluwala	Dam Breach Simulations for Emergency Preparedness in Mi Oya Basin (Co- supervisor - Mr. Daham Dias)	E/18/331
			E/18/351
			E/18/342
C/18/20		Statistical downscaling of CMIP6 climate projections to Mi Oya basin	E/18/069
			E/18/333

C/18/21	Dr (Ms). Gouri De Silva	Accuracy assessment of satellite and reanalysis rainfall estimates compared to in situ observations in Mii-Oya river basin, Sri Lanka	E/18/195 E/18/411
C/18/22		Performance evaluation of HEC-HMS and SWAT models for long term runoff simulation in Kelani river basin, Sri Lanka	E/18/051 E/18/076
C/18/23	Mr. D.D. Dias (C)	Modelling a floating type FAD using CFD approach	E/18/213 E/18/374
C/18/24		Impact of coastal structures on the Tsunami Bore - in land structure interactions- An experimental investigation	E/18/144 E/18/111
Geotechnical & Transportation			
C/18/25	Dr. A.G.H.J. Edirisinghe	Optimum number of three wheelers in a three Wheeler park	E/18/364 E/18/346
C/18/26		A study on Safety and Convenience Issues at Bus Halts	E/18/309 E/18/137
C/18/27	Dr. I.M.S. Sathyaprasad	Socio-economic and environmental implications of an employer-arranged work transport service using chartered buses - a case study	E/18/174 E/18/193
C/18/28		Investigation of the education-trip characteristics of residential students of Peradeniya University and the feasibility of a shuttle transport system	E/18/378 E/18/376
C/18/29		Investigation of the education-trip characteristics of non-residential students of Peradeniya University and the feasibility of a chartered bus transport system	E/18/241 E/18/302
C/18/30	Dr. L.C. Kurukulasuriya	Compressibility characteristics of stabilised expansive soil (Co- supervisor - Dr.M.C.M.Nasvi)	E/18/244 E/18/240
C/18/31		Anisotropic swelling behavior of expansive soils	E/18/166 E/18/338
C/18/32	Dr. W.M.V.S.K. Wickramasinghe	Analyzing the cost-effectiveness of the Bus Service in Sri Lanka (Co-supervisors - Prof. Wasantha Athukorala and Mr. Dhanushka Herath)	E/18/400 E/18/414
C/18/33		Evaluate the imposed accident risk from Right-Turn vehicles entering two-way two-lane divided highways	E/18/393 E/18/312
C/18/34	Dr (Ms). D. de S. Udakara	Utilization of quarry dust to improve the shear strength characteristics of a residual soil	E/18/223 E/18/408
C/18/35		Shear strength of Sand Treated with Quarry dust and Lime	E/18/275 E/18/228
C/18/36	Dr. M.C.M. Nasvi	Utilization of OPC and Geopolymers in Expansive Soil for Flexible Pavement Subgrade Design (Co- supervisor - Dr.S.K.Navaratnarajah)	E/18/158 E/18/031
C/18/37		Prediction of Compressive Strength of Geopolymer-based Borehole Well Cement using Artificial Neural Networks	E/18/143 E/18/108
C/18/38		Life Cycle Assessment of One-Part and Two-Part Geopolymer Stabilized Expansive Road Subgrade: A Case Study	E/18/093 E/18/094
C/18/39	Dr. A.M.R.G.Athapaththu	Application of Artificial Neural network to predict the stability of weathered rock masses	E/18/184 E/18/389
C/18/40		Use of rock mass classification and limit equilibrium methods to assess the stability of highly weathered rock masses	E/18/237 E/18/110
C/18/41	Dr. S.K.Navaratnarajah	Influence of particle gradation on shear behavior of railway ballast	E/18/321 E/18/315
C/18/42		Evaluation of the effect of particle shape on shear behaviour of large size granular materials using Artificial Neural Networks (ANN)	E/18/019 E/18/020

C/18/43	Dr. W.R.S.S. Dharmarathna	Travel behavior changes under the fuel price fluctuations and possible future scenarios	E/18/291 E/18/038
C/18/44		Effectiveness of the bus route system in Kandy district (Co- supervisors - Dr. A.G.H.J. Edirisinghe and Mr. Dhanushka Herath)	E/18/121 E/18/207
Materials and Structures			
C/18/45	Prof. K. K. Wijesundara	Nonlinear analysis of reinforced concrete frame structures using displacement based fiber beam-column elements (Co- Supervisor - Professor Tiziana Rossetto)	E/18/226 E/18/371
C/18/46		Effect of kinematic constraints in prediction of response of shear critical reinforced concrete elements	E/18/347 E/18/219
C/18/47		Direct displacement-based seismic design of steel eccentrically braced frame structures	E/18/369 E/18/064
C/18/48	Dr. K.R.B. Herath	Mechanical and physical properties of natural fibers used in composites (Co- Supervisor - Prof. R.M.G. Rajapakshe)	E/18/187 E/18/208
C/18/49		Mechanical behavior of natural fiber reinforced polymer composites (Co-Supervisor - Prof. R.M.G. Rajapakshe)	E/18/386 E/18/298
C/18/50		Seismic behavior of interlocking blocks in walls	E/18/289 E/18/392
C/18/52		Behaviour of beams made of selected lattice structured material II	E/17/192 E/18/356
C/18/53		Mechanical behaviour of Selected Kirigami Structures	E/18/287 E/18/011
C/18/54	Dr. P.B.G. Dissanayake	Factors Contributing to Construction Cost Overruns in Sri Lanka	E/18/012 E/18/044
C/18/55		Factors Contributing to Construction Time Overruns in Sri Lanka	E/18/235 E/18/157
C/18/56		Factors Affecting Productivity of Labour in the Sri Lankan Construction Industry	E/18/296 E/18/052
C/18/57	Dr (Ms). C.K. Pathirana	Aggregate Characteristics and Their Role in Sustainable Concrete Development	E/18/140 E/18/196
C/18/58		Optimising Concrete Mixture Proportions for High-performance and Low Carbon Footprint	E/18/152 E/18/007
C/18/59		Assessment of Reinforced Concrete Corrosion Mitigation Strategies	E/18/202 E/18/176
C/18/60	Prof. H.D. Yapa	Corrosion effects on the behavior of reinforced concrete half-joint beams	E/18/171 E/18/273
C/18/61		Temperature prediction of pipe-cooled concrete systems via finite difference formulation	E/18/024 E/18/332
C/18/62	Dr. A.J. Dammika	Evaluation of flexural and shear performance of steel-concrete composite beams with flexible shear connectors	E/18/080 E/18/254
C/18/63		Effect of deck aspect ratio for the dynamic characteristics of the post-tensioned concrete girder bridges	E/18/292 E/18/050
C/18/64		Behaviour of jointless bridge decks with link slabs	E/18/095 E/18/054
C/18/65	Dr J.A.S.C. Jayasinghe	Wind Effect on High-Density Building Aeras: A Study based on CFD Simulations	E/18/116 E/18/092
C/18/66		Effect of Initial Imperfections in Thin-Walled Steel Hollow Piers under Lateral Cyclic Loading	E/18/183 E/18/033
		Performance Evaluation of Steel Hollow Building Column under	E/18/353

C/18/67		Simultaneously Combined Fire and Lateral Cyclic Loads: A Coupled Thermo-Mechanical Numerical Approach	E/18/109
C/18/68	Prof. C.S. Bandara	Strength assessment of precast concrete elements made up of concrete with waste plastic	E/18/243 E/18/234
C/18/69		Strength assessment of T shaped welded steel plates	E/18/220 E/18/358
C/18/70		Production of new generation and sustainable concrete using Rice Husk Ash (RHA)	E/18/129 E/18/099
C/18/71	Dr. H.A.D. Samith Buddika	Investigation on behaviour of M-sand and sea sand based concrete	E/18/003 E/18/146
C/18/72		Sustainable concrete: Potency of sugarcane bagasse ash as a cementitious material in the construction industry	E/18/390 E/18/251
C/18/73	Dr (Ms). K.C. Chandrasiri	Chemical resistance of eco-friendly concrete	E/18/303 E/18/246
C/18/74		Shrinkage characteristics of modified high volume fly ash concrete	E/18/161 E/18/360
C/18/75	Dr. N.M.S.H. Bandara	Structural rehabilitation using Ultra High Performance Fibre Reinforced Concrete (UHPFRC) jacketing	E/18/262 E/18/310
C/18/76		Use of machine learning algorithms to predict the mechanical properties of Ultra High Performance Fibre Reinforced Concrete (UHPFRC)	E/18/005 E/18/083