

SBS5498 Final Year Project 2 (Applied Research Project)

<http://ibse.hk/SBS5498/>

List of Research Areas

Update: 25 Oct 2018

Research Area	Potential Supervisors
1. HVACR 1.1 Thermal comfort 1.2 Cooling load calculations 1.3 HVAC systems 1.4 Heat rejection systems 1.5 Refrigeration 1.6 Moisture & humidity control 1.7 VRF systems 1.8 Weather data & climatic information	SH, RN, LYM, ET, PY, YHX, CY
2. Fire Services 2.1 Fire sprinkler systems 2.2 Fire hydrant & hose reel systems 2.3 Fire alarm & detection 2.4 Smoke control & staircase pressurization 2.5 Gas protection system 2.6 Fire engineering approach	KPC, SH, RN, ET
3. Piped Services 3.1 Water supply services 3.2 Drainage services 3.3 Fuel gas supply 3.4 Rainwater harvesting & greywater recycling	ET, SH, RN, CY, KPC
4. Electrical Services 4.1 Power supply & distribution 4.2 Electrical safety & protection 4.3 Emergency power 4.4 Power quality & harmonics 4.5 Lightning protection 4.6 Lifts & escalators	YFK, SH, RN, ET
5. Lighting Technology 5.1 Visual environment, light and human health 5.2 Light sources & systems 5.3 Lighting controls 5.4 Daylighting 5.5 Lighting economics	RN, SH, ET, KPC
6. Engineering & Project Management 6.1 Construction project management 6.2 Contract management	DW, RN, ET
7. Green Building 7.1 Green building assessment 7.2 Building environmental performance 7.3 Green building design & operation 7.4 Post-occupancy evaluation 7.5 Zero energy/carbon building 7.6 Green roof systems & vertical greening 7.7 Carbon audit & embodied energy	SH, RN, ET, PY, CY, YHX

8. Building Information Modelling 8.1 BIM software & technology 8.2 BIM collaborations 8.3 BIM model coordination 8.4 BIM adoption & implementation 8.5 Ergonomic design of BIM workstation	SH, RN, PY, ET
9. Facility Management 9.1 Building operation & maintenance 9.2 Ergonomics & flexibility 9.3 Building refurbishment 9.4 Asset management	DW, SH, RN
10. Building Energy Efficiency 10.1 Building energy use 10.2 Building energy audit 10.3 Building energy simulation and modelling 10.4 Building energy management	SH, RN, ET, PY
11. Renewable Energy in Buildings 11.1 Solar energy systems 11.2 Photovoltaic systems 11.3 Wind energy 11.4 Biomass energy 11.5 Geothermal energy	WYH, WSF, LYM
12. Indoor Environmental Quality 12.1 Indoor air quality 12.2 Noise control & acoustics 12.3 Electromagnetic levels 12.4 Building materials 12.5 Healthy buildings	LYM, PY, CY, YHX
13. Building Commissioning 13.1 Testing & commissioning 13.2 Retro-commissioning 13.3 Reliability engineering	DW, YFK, RN
14. Building Automation and Controls 14.1 Building automation 14.2 Building system controls 14.3 Intelligent buildings	RN, ET
15. Miscellaneous 15.1 Building services for elderly 15.2 Residential buildings and public housing 15.3 Classrooms & lecture theatres 15.4 Underground spaces	SH, KPC, PY, CY, YHX

List of BSE academic staff:

SH	Ir Dr Sam C M Hui	ET	Dr Ernest TSANG Kin Wai
DW	Sr Ir Dr Dennis W K Wu	PY	Dr PAN Yan
WYH	Dr WANG Yuanhao	YHX	Dr YAN Huaxia, Hannah
RN	Ir Dr NG Tsz Ho Roger	CY	Dr CHEN Yi, Cindy
LYM	Dr LUO Yimo, Constance	KPC	Ir Prof K P Cheung
WSF	Dr WANG Shi Feng, Stephen	YFK	Ir Dr Y F Kwok