Research Abstract:
Sky garden, a covered / partially covered naturally ventilated landscaped area at a high level, is designed to improve ventilation and thermal conditions of a micro-climate and provide a recreational space for simultaneous enhancement of social interaction and neighbourhood quality. The provision of sky gardens as a sustainable design strategy aims at improving the quality of a living environment to balance social, environmental and economic concerns. In densely occupied, high-rise contexts, can these objectives be achieved practically?

If sky garden can be considered as an alternative communal space with leisure activities and a relaxing outdoor greenery environment that promotes a healthy and sustainable living quality, provision of such an appealing covered landscaping area is perquisite rather than a by-product in new high-density high-rise developments. The research targets to offer directions towards the future development of sky gardens in promoting sustainable urban living.

Research Methodology:
Interpretive research methodology is adopted. The significance of sky gardens in high-density high-rise residential developments will be substantiated under literature reviews and case studies of deficiencies and needs in high-rise living environment, greenery in urban living, recreation spaces at sky-high levels, outdoor thermal comfort in gardens and micro-climate in high-rise developments. Qualitative analyses on local and overseas cases of sky gardens will identify typologies with regard to location, headroom, orientation, openness, spatial quality, accessibility, landscape design, greenery, amenities and security. Structured interviews with designers, developers, property management staff and residents will capture design intents, expectations and users feedbacks of current sky gardens.

Results / outcomes:
1. Identification of benefits of sky gardens to promoting health and well-being and enhancing neighbourhood place-making;
2. Evaluation of the effectiveness of current design of sky gardens in promoting sustainable urban living; and
3. Formulation of design guidelines of ideal sky gardens in high-density high-rise residential developments.

Key Publications: