

Keselamatan, Kesehatan dan Pengurusan Kecemasan

Keselamatan, kesihatan dan alam sekitar (SHE), adalah bidang pegajian yang melibatkan kepelbagaian disiplin yang memerlukan input daripada berbagai bidang utama kejuruteraan bagi memperbaiki aspek keselamatan dan kesihatan pekerja, masyarakat dan mutu alam semula jadi. Ia merangkumi berbagai aspek ekosistem, persekitaran dan aktiviti manusia. Termasuklah persekitaran industri kecil dan sederhana, aktiviti pertanian, biosistem, tempat kerja, gangguan ergonomi, pengurangan tekanan mental, keadaan fizikal dan psikososial. Bidang ini juga merangkumi aspek penilaian bahaya-bahaya, pengiraan risiko, dan keberkesanan dan aspek etika tindak balas dalam menghadapi krisis dan bencana. Bidang pengajian ini juga merangkumi rekabentuk untuk pengendalian selamat bahan kimia industri, pengurusan bencana, pelan dan tindakbalas kecemasan semulajadi dan buatan manusia, keselamatan industri, kesihatan dan pengurusan alam sekitar, analisis bahaya, keselamatan proses dan pencegahan kehilangan dan juga kesihatan keselamatan perkerjaan. Bidang penyelidikan SHE merangkumi berbagai aktiviti manusia seperti dalam industri pembuatan, pemprosesan dan pelbagai industri yang berkaitan.

Safety, Health and Emergency Management

Safety, health and environment (SHE) is a multi-disciplined field of study which draws input from various fields of engineering in improving the aspects of safety and health of workers, and the community, as well as the quality of our natural environment. It covers various aspects of natural eco-system, and human activities and settings. Typical settings include small- and medium-sized industries, agricultural activities, bio-systems, work place, ergonomic interventions, mental stress reduction, and physical as well as psychosocial environments. This field of study also covers the evaluation of hazards, risks, and the effectiveness and the ethical aspects of response to crises and disasters. This field of study also involves the design for safe handling of industrial chemicals, disaster management, emergency plan and response to natural and man-made disasters, industrial safety, health and environment management, hazard analysis, process safety and loss prevention and occupational health safety. Research areas in SHE cover various types of human activities such as manufacturing, processing and related industries.