

Indoor Environmental Quality (IEQ) in workplace

Indoor Environmental Quality (IEQ) refers to the quality of a building's indoor environment in relation to the health and wellbeing of those who occupy space within it. IEQ is determined by many factors, including visual comfort, indoor air quality (IAQ), thermal comfort (TC). Indoor environments are highly complex and worker may be exposed to a variety of contaminants and discomfort condition. IEQ in workplaces has a crucial role on the return on investment of businesses and industry. A workplace with high IEQ obviously improves the workers' health, mood and safety thereby increasing their productivity. Therefore, the additional cost of maintaining high IEQ levels in workplaces will be paid back in a reasonable period and generates additional monetary returns thereafter. Indoor air quality (IAQ), which depends on airborne contaminants concentrations inside buildings and outside concentrations level, is one of the crucial factors that establish the quality of the indoor environment and ensure reaching high level of productivity and safety. The thermal comfort (TC) refers to a condition that is ruled by many environmental and human factors (physiological, physical, etc). The physical parameters include air temperature, air velocity, humidity, radiant temperature, and relative humidity, while the major human factors are clothing and metabolic heat. The thermal comfort is not only related to human well-being and safety but also energy saving of workplace.

During the traineeship the student will be involved in: fundamentals of Indoor Environmental Quality (IEQ); a practical approach to evaluate the IEQ and thermal comfort of a workplace, focusing on factory or industrial environment through the use of portable datalogger and probes for the measurement of main IEQ parameters; management of download and analysis of measured data with suitable tools and software, indoor lighting levels measurements

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Days, duration and place of traineeship will be agreed based on the needs of the student.