

Editorial

This is the ninth Volume of the OUSL Journal, the Journal of the Open University of Sri Lanka. The articles published in this issue cover research on photochemistry, health science, emotional Intelligence on job performance, zoology, transport, phytoremediation and English literature.

Increasing drug resistance of pathogens and negative consequences of antibiotic usage has made scientists search for alternative medicines from plant materials found in nature. Sivagnanasundaram and Karunanayake, in their article, investigate the antimicrobial and phytochemical properties of *Artocarpus heterophyllus* and *Artocarpus altilis* leaf and stem bark extracts. Phytochemical screening confirms the presence of phytosterols, anthraquinone, terpenoids, phenols, glycosides, flavonoids and diterpenes, which are known to possess antimicrobial properties.

The Southern Expressway is the first expressway built in Sri Lanka and plays a vital role linking other major roads in Sri Lanka. The Expressway provides motorists a hassle free safe journey at a uniform speed throughout their journey offering advantages on fuel consumption and reduced travel time. Kumari *et.al*, in their paper titled “Future impact of current toll-gates on the capacity of Southern Expressway”, investigate the efficiency of manually operated toll gates along the Southern Expressway and the impact on the capacity of interchanges which may finally limit the expressway potential in the future. Findings suggest that, even at present, Kottawa and Pinnaduwa interchanges do not operate satisfactorily during long weekends and festive seasons. The study recommends suitable off ramp lengths after considering the existing queue lengths and deceleration lengths. It also suggests introducing an electronic toll collection system with automatic coin machines or touch and go systems or systems operated through transponders *etc.*, in order to improve the service rate at toll gates.

Leaders who have high emotional intelligence (EI) are more likely to achieve greater success at the workplace. EI is the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and

actions. In other words, it is the capacity for recognizing one's own feelings and those of others to motivate all involved. Job satisfaction refers to the collection of positive feeling and affective responses associated with the job. S. Praveena, in her paper, investigates whether there is any significant relationship between EI and job performance of bank managers in Sri Lanka. Her findings confirm that higher levels of EI of bank managers lead to higher levels of job performance and job satisfaction. EI is recognized as one of the most critical skills that managers should possess nowadays.

Diyawanna Oya is a man-made ancient canal system located in Sri Jayewardenepura, which is the present administrative Capital of Sri Lanka. Zooplankton is a microscopic organism, which drifts or floats freely in freshwater bodies. As a result of rapid development taking place in Sri Jayewardenepura, most of the natural aquatic habitats are disturbed, restored, restructured or altered. Ruwini Perera, in her paper, investigates the variation of diversity, abundance and density of zooplankton present in a selected branch of Diyawanna Oya and their correlations with some environmental parameters. The results revealed that there was a significant variation of zooplankton species composition, diversity, their abundance and density during February to July 2003 and also among six sampling stations of Diyawanna Oya.

All over the world, mechanical ventilation is one of the most frequently used life supportive technique in Intensive Care Units (ICUs) which facilitates the gas exchange to the lung in impaired breathing situations. Marasinghe *et al.* studied the experiences of mechanically ventilated patients in the ICUs of the National Hospital of Sri Lanka, the Teaching Hospital in Peradeniya and the District General Hospital in Nuwara Eliya. It was found that patients faced negative experiences such as pain, dependency, fear and anxiety, thirst, noise level, cold environment and nightmares. Patients expressed moderate to high levels of distress in trying to communicate their needs during mechanical ventilation.

Rapid urbanization, industrialization and over use of fertilizers in agricultural practices have resulted in serious environmental pollution in Sri Lanka. Textile, paper, tannery, metal finishing, food

and beverage industries and agricultural runoff contribute most to water pollution. Phytoremediation involves the removal of pollutants from water and soil using plant materials. Thayaparan *et al*, in their paper, looks at the phytoremediation potential of *Lemna minor* for the removal of Cr(VI) and the time required for significant absorption of Cr(VI). They found that maximum uptake of Cr(VI) ($5.8 \times 10^3 \mu\text{g/g}$ dry weight) was at 8 mg/L in ambient solutions. However, the bio-concentration factor (BCF) decreased with increasing chromium concentration in the solution. The BCF was 1000 for chromium up to 3 mg/L. These results suggest that *Lemna minor* could be used to remove Cr(VI) from waterways.

Folktales that Henry Parker collected from the southern villagers of Sri Lanka in the late nineteenth century narrate a real-life experience of a person or a historical, religious or heroic event which took place many years ago. Lal Medawattegedera, in his article titled "We Must Make Men: constructions of masculinities and femininities in Parker's Village Folk Tales of Ceylon", analyzes the gender aspects of these Sinhala folktales published by Henry Parker. Medawattegedera concludes that Parker's folktales are sites where gender tensions are played out, where the feminine gender becomes a site against which the male proves his validity and superiority.

This year we have succeeded in publishing two Volumes of the OUSL Journal because of the positive response we have received from our readers. We look forward to publish your current research findings in our next volume.

Professor K. Sarath D. Perera
Editor-in-Chief