

Areas of research within TUT Water Research Group

1. *Environmental Biotechnology*

Use of micro-organisms to inhibit water pollution with special reference to wastewater and Industrial effluent cooling

2. *Water and wastewater use - Health related water microbiology*

- Sources of groundwater and surface water pollution.
- Prevention and control of the transmission of waterborne diseases by domestic drinking water supplies in rural areas through development of strategies to improving sustainable and effective disinfection in small rural water treatment plants
- Development of household drinking water technology
- Development of novel and inexpensive technique for the treatment of groundwater
- Assessment of the human health risk associated with microbiological and chemical hazards in rural community drinking water sources with emphasis on immuno-compromised people (HIV/AIDS patients) and TB patients
- Impact of irrigation on the microbiological quality of fruit and vegetables and its risk on the health of the rural community.

3. *Biofilm in potable water distribution systems*

Combined disinfection processes are used to ensure the maintenance of the microbiological quality of potable water at the point of consumption as well as in household containers during the storage of drinking water with emphasis on the control of biofilm regrowth.

4. *On-site Training of Small Rural Water Supply Operators*