

## Chapter 3:

# Pollutants of Emerging concern; Categories, health effect and its treatment

**Dhananjai Rai<sup>1</sup>, Sauhardra Ojha<sup>2</sup>, Chandra Kant Kaithwas<sup>3</sup>, Ashwani Kumar Sonkar<sup>2</sup>, Anurag Singh<sup>3</sup>, Amresh Kumar Yadav<sup>2</sup>, Vinod Kumar Chaudhary<sup>4\*</sup>**

<sup>1</sup>Department of Civil Engineering, GITM, Gurugram-122001, Haryana, India

<sup>2</sup>Department of Civil Engineering, Institute of Engineering and Technology, Dr Ram Manohar Lohia Avadh University, Ayodhya-224001, Uttar Pradesh, India

<sup>3</sup>Department of Mechanical Engineering, Institute of Engineering and Technology, Dr Ram Manohar Lohia Avadh University, Ayodhya-224001, Uttar Pradesh, India

<sup>4</sup>Department of Environmental Sciences, Dr Rammanohar Lohia Avadh University, Ayodhya-224001, Uttar Pradesh, India

### Abstract

Anthropogenic activities are the main reason behind the presence of emerging contaminants in to the environment. Personal care products (PCPs), pesticides, pharmaceuticals, plasticizers and surfactants etc. are the common source of emerging contaminants (ECs). These ECs being of their complex structure are not removed from the water using conventional treatment plants. Moreover its concentration in water is in very small amount and this makes them unidentifiable. These pollutants cause several kinds of life threatening diseases in human on exposure to them. Biological based remediation can be more effective in treatment of such pollutants.

**Keywords:** Emerging contaminants, Personal care product, Pesticide, Pharmaceutical compounds