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Summer Field School [Online] on
MOUNTAIN ECOSYSTEMS AND RESOURCE MANAGEMENT
Ivano-Frankivsk Region, Ukraine :: 19-28 September, 2021

DELEGATE PARTICIPANT'S PROFILE

	**Dr. Suneel Kumar** *Assistant Professor* Department of Chemistry Government College Chamba Himachal Pradesh, India Tel: +919418730596 Email: sssuneel44@gmail.com
Highest Education	Ph.D. (Chemistry)
Personal Statement	Dr. Suneel Kumar is currently working as an Assistant Professor (Chemistry) at Government Degree College Chamba, Himachal Pradesh, India. Dr. Kumar received his Ph.D. degree from Indian Institute of Technology (IIT) Mandi, Himachal Pradesh, India in 2019. Previously, he received his B.Sc. and M.Sc. degrees in chemistry from Himachal Pradesh University, Shimla in 2011 and 2013, respectively. He has qualified CSIR-UGC Examination in Dec. 2013, and awarded with Junior Research Fellowship (JRF) by University Grants Commission to pursue Ph.D. in Chemistry from August 2014 onwards. His main research interest is in the field of semiconductor and two-dimensional materials based photocatalysis for energy conversion and environmental remediation applications. He has published thirty-five research papers in various international journals. In addition, he has participated in various national and international conferences.
Paper/Presentation Title (Unpublished work)	*An Overview to the Industrial Water Purification by Semiconductor based Photocatalysis: Challenges and Prospective*
Keywords (3-5)	Semiconductors; Photocatalysis; Water Purification; Industrial Waste; Nanomaterial

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Abstract (100-300 words)	The treatment of industrial waste water is need of the hour as water plays vital role for the survival on this planet. With the increase in industrialization and population, the demand of water supply has increased drastically. Therefore, various researchers have focused their study in the field water purification by developing semiconductor-based nanomaterials. In the recent years, semiconductors like; zinc oxide, titanium dioxide etc. has emerged as promising materials for photocatalytic applications due to its several advantages properties. In this work, the researcher will discuss recent advancements in the field of photocatalysis for environmental remediation applications particularly for industrial waste water treatment by removing various pollutants. The paper will be based on the review of recently explored by using- experiment research methods in the laboratory. The paper will also highlight the various techniques, like; sol-gel method, hydrothermal synthesis, radiation assisted method etc. have been utilized for the development of semiconductor-based nanomaterials. Finally, the challenges and future prospective will be discussed. This comprehensive study in the form of a review summarizes the recent advancement in the field of water purification technology and detailed insight on the scope of semiconductor materials for environmental remediation applications.
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