中国科学院武汉岩土力学研究所
Institute of Rock and Soil Mechanics,Chinese Academy of Sciences

岩土力学与工程前沿讲坛

Forum on Geomechanics and Geo-engineering

No.SKL*2025-21*

应岩土力学与工程安全全国重点实验室邀请，加拿大阿尔伯塔大学 Rajender Gupta 教授来访交流并做学术报告，报告信息如下：

报告人 Lecturer	**Prof. Rajender Gupta**
讲座题目 Theme	**Sustainable Future of Coal in Carbon Constrained World**
报告时间 Time	**2025 年 9 月 29 日（周一）上午 10:00**
报告地点 Spot	**武汉岩土所研发大楼 4 楼 1 号会议室**

欢迎广大科研人员及研究生参加！

岩土力学与工程安全全国重点实验室
State Key Laboratory of Geomechanics and Geotechnical Engineering Safety

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Coal is the most abundant and widely distributed energy resource and is responsible for more than 40% global electricity production. In past day before 1950 there were no environmental concerns. However, after industrialization, issues of NOx, SOx and particulate matter along with trace elements started causing global environmental problem. After historical meeting at Kyoto in 1997 on global warming and climate changes, greenhouse gas emissions took the centre-stage. By this time the technologies for control and mitigation of the abovementioned emissions were well developed and well deployed at least in most of the countries. A number of projections were made to replace coal fired power plants by renewables. There were increased emphasis and subsidies on renewable resources. However, the increased demand of power was much more than the net output from renewables. Global warming and accelerated climate changes started forcing the deployment of CCUS technologies to reduce CO_2 emissions. And coal use for power generation being a point source, capture and storage from coal fired power stations became an easy place for CCS deployment apart from gas fields. These technologies become essentials for the sustainable future of coal.

报告人介绍

Rajender Gupta is currently a Professor Emeritus in the Department of Chemical and Materials Engineering at the University of Alberta. He was one of the founding members for establishing the Canadian Centre for Clean Coal and Carbon and Mineral Processing Technology at the University of Alberta, where he led the Clean Coal Technology theme. He also participated in developing the University of Alberta-Tsinghua University collaboration in Clean Coal Technology.

Prior to joining the University of Alberta, he was leading several research projects on Coal combustion, ash formation, advanced coal characterization, oxyfiring from 1987-2006 in collaboration with IHI Japan. In the long span of more than 35-40 years of coal related research, he has made more than 200 presentations in national and international conferences and more than 180 research papers in international journals on almost all aspects of coal research.