

## Guru Ghasidas Vishwavidyalaya (a Central University) Bilaspur C.G. Organized an Expert talk on “Recent trends in Turbomachinery”

**7 July, 2021, Bilaspur.** As the disruption in the offline mode of teaching continues for the second year, students of various technical courses are facing a tough time trying to keep themselves updated in the evolution of various industries and approaches. To overcome this, many industrialists and professionals have come forward to share their knowledge and experience with the students.

**Gas Turbine Cycle Variations Reheat or Sequential Combustion**

- Hot HP Turbine Section gases are reheated by combustion of additional fuel (3a).
- Reheated gases enter into LP turbine section (3a to 4).

The reheat configuration:

- Increases LP Turbine output (fired to a similar temperature as T3)
- Raises the turbine's final exhaust temperature (good for HRSGs)
- Increases simple-cycle power output
- Increases combined-cycle power output (HRSG and STG)

Labels in diagram: Fuel, Comb 1, Comb 2, Compressor, Turbine, Load, High Pressure Turbine, Low Pressure Turbine, Maintenance-free wetted rotor.

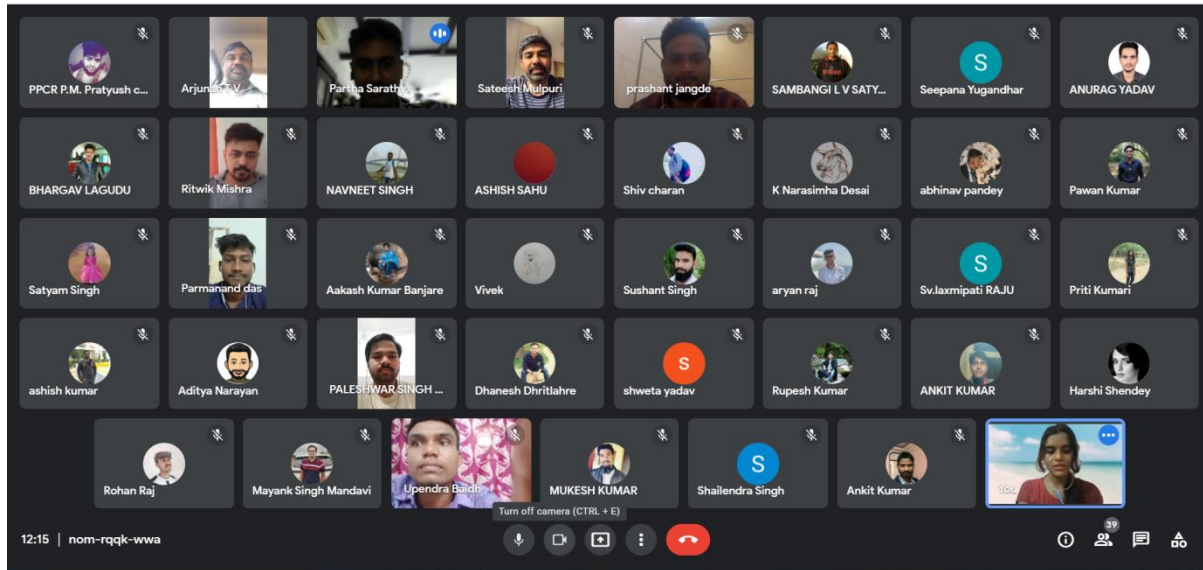
An expert talk on recent trends in Turbomachinery was organized by the Mechanical Engineering department of Guru Ghasidas Vishwavidyalaya Bilaspur (Central University). It was conducted by Prof. T. V. Arjunan, Dean (SoS, E&T) the conveynor and Mr. Prashant Kumar Jangde, Asst. Professor (ME) the coordinator of the event respectively .

**Combustion Components**

Labels in images: Liner Assembly, Flow Sleeve, Transition Piece, Fuel Nozzle.

The chief speaker of the talk was Mr. Parthasarathy Chellappa. He is currently working as the Vice President of Engineering Performance optimization at Sembcorp Industries Ltd, Singapore. The speaker has 25 years of experience in leading business operations, engineering services, and project

management in power plants, embedded utility generation units in chemical, paper, oil & gas sectors. The company is a supplier of independent as well as combined gas turbine power plant and has set up 26 power plants of 12 Gigawatt capacity in various countries.



The session lasted for an hour and was held in online meeting platform, Google meet. More than 45 students and faculty members of the mechanical engineering department were present in the event. The speaker had covered most of the areas pertaining to gas turbine starting from the development, specification of components, practical difficulties, challenges, etc. The speaker, Mr. Chellappa also answered the doubts of the participants and guided the students about the career opportunities in the field of mechanical engineering and industries. Welcome note and vote of thanks is given by the student coordinators Megha Pathak and Harshikha Shendey respectively.