Numerical modeling of lifted flame



Lifted flame is a very complicated turbulence flame; difficult to model the lift-off height. Conditional moment closure (CMC) is an advanced combustion model but it too cannot predict the lift-off height accurately. We have successfully proposed a new model based on extinction criteria (CMCE). CMCE has predicted lift-off heights accurately for a wide range of jet velocities and coflow temperatures in a lesser CPU time. This proposed model helps in modeling gas turbine combustion accurately.



Prof. Sreedhara Sheshadri, Department of Mechanical Engineering, sreedhara.s@iitb.ac.in