The third **Bernard Lewis Traveling Lecturer Fellowship** has been awarded to the Spanish Section of the Combustion Institute for 5 lectures by Dr. Jong Soo Kim, Korea Institute of Science & Technology and member of the Korean Section of the Institute..

The lectures in Madrid, Seville, and Zaragoza will cover two subjects, namely (1) Oxy-fuel combustion in PC Power Plants for CO_2 Capture and (2) Flame instability, in particular its implication to oxy-fuel combustion (Oxy-fuel combustion with ITM (Ion-Transfer Membrane) Oxygen production or with SOFC is very likely susceptible to oscillatory instability due to high heat transfer required to transfer oxygen ion across the ceramic membrane). The details of these lectures are given below.

_ Oxy-Fuel Combustion in PC Power Plants

1. Long-Term World Energy Market and Importance of Coal in the Future
2. Concept of CO_2 Capture Technologies in PC Power Plants
3. Economic Feasibility of Oxy-Fuel Combustion Technologies in Comparison with Other Technologies Options, such as Future-Gen IGCC and CO_2 Post Combustion Capture
4. The Main Research Areas including Issues Regarding Burner Development
5. Market Penetration Strategy

_ Flame Instability

1. Turing Instabilities in Flames
2. Fast-Time Instability as its Reactive-Diffusive Origin
3. Its Implication to Oxy-Fuel Combustion, particularly in connection with ITM oxygen production and SOFC

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