Scholarship for Ph.D./MSc. Student in Mechanical Engineering in a International Project (Advanced Newton Fellowship)

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| **Advanced Newton Fellowship Project**  ERI 034545 | **Flexible Oxy-Combustion for Turkish Fuels** |
| Research position: | * The project has been accepted under Advanced Newton England Fellowship program. * 1 Ph.D. OR 1 M.Sc. student will be funded for 3 years in this project. * Student should travel to England at most one month in a year. |
| Summary: | In Turkey, coal is one of the most important energy sources used in order to produce heat, steam and electricity. However the abundant low quality coal reserves in Turkey have high ash and moisture content that burn inefficiently and environmentally unfriendly. In order to utilize these coals, clean combustion technologies must be devised to reduce the CO2 emissions emitted to the atmosphere. Oxy-fuel is a clean combustion technology to produce green energy from fossil fuel combustion which can also be used to decrease hazardous emissions from Turkish lignite energy extraction. Co-firing of the coal with biomass is another technology to decrease hazardous emissions from the combustion and increase energy efficiency. As Turkey is an agricultural country, which causes enormous amounts of agricultural wastes, co-firing technology can also be used for energy production in a cleaner way. To be able to apply these technologies to the existing power plants or develop new ones, it is crucial to know the design parameters. This project aims to obtain fundamental design parameters for co- firing of Turkish lignites in oxy-fuel environment. In this sense collaboration with a very high quality and specialized UK research group will be very beneficial for both the applicants and her research groups career development. This partnership will also lead to long-term collaboration as both groups are working in the same area having complementary experience and experimental set-ups. |
|  | For more information please contact  Asst. Prof. Dr. Feyza Kazanç – fkazanc@metu.edu.tr |