Mr. Parsa Zamankhan  
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Will present a talk titled

Simulation of the Airflow and Electrical Quantities in Corotrons (The Charging Elements in Electrophotographic Machines)

ABSTRACT

The steady state airflow and electric field distributions in a corona device (corotron) during charging of a moving dielectric substrate (photoreceptor) for different operating conditions are studied. The set of two-way, fully-coupled electrohydrodynamics governing equations is used in the analysis and parametric studies are performed. The effects of wire voltage, photoreceptor speed and device-substrate gap size on photoreceptor charging, airflow, charge density and electrical potential are studied. It is shown that the charging is strongly affected by the wire voltage and the substrate speed. The results also show the importance of corona effect on the flow structure in the device.

Friday, March 31, 2006  
2:15 p.m., CAMP 176  
Refreshments will be at 2:00 p.m.