Dear Colleagues,

I would welcome you to attend the SCDT-FlexE Centre Weekly Tuesday Seminar by our colleague Dr. Umesh Pratap Pandey. The details of the seminar (to be given in webinar format) are given below:

Title: “Material Applications of Tri-coordiante boron-based donor-acceptor compounds by tuning Luminescence”

Date: 2nd February, 2021 (Tuesday)
Time: 7:30 PM to 8:30 PM
Presenation will be on zoom. The link is given above.

Th talk abstract and a brief bio of the speaker is given below. Please join if you are in a position to do so.

With regards
S.K.I.

Abstract of talk sent by Dr. Pandey:

In the present talk, I will discuss material applications of tri-coordinate boron-based donor-acceptor compounds by tuning the Luminescence. The central theme of this talk is “How to design donor-acceptor (D-A) materials containing boron as an acceptor and nitrogen as a donor for materials applications.

I will discuss on different emission pathways like fluorescence, phosphorescence, delayed fluorescence, radical emissions by systematic structural and electronic perturbations from boron-based emitters. These compounds are appreciably emissive in solid-state. They exhibit AIE, mechanochromism, and environment-dependent emission response. They have the potential to sense temperature, viscosity in the polar and non-polar medium. The observations are rationalized by both theoretical and experimental studies.

These findings together with photophysical properties, structure-property relations also, provide an insight to understand the mechanism of delayed emission.

Bio:

Dr Umesh Pratap Pandey earned his Ph D degree from the Department Of Inorganic and Physical Chemistry, Indian Institute of Science (IISc) Bangalore, under the supervision of Prof. P Thilagar. His research interest is “Design, synthesis and applications of Organic luminescent Materials”. Presently he is working as a Project-Scientist at National Centre for Flexible Electronics in the inks team with Dr. Ashish and Prof. Y.N. Mohapatra.