B. P. Poddar Institute of Management & Technology
137, V. I. P. Road, Kolkata – 700052

Ref. No.: BPP/Prc/Notice/1808/2024 Date : 13.11.2024

Notice

The following member will be delivering a lecture as detailed below:

Presenter's Name: MR. **SAYANTAN CHAKRABARTI**

Title: **Multi-Aspect Digital Validation of Ownership Document with Authentic data Driven Applicable Copyright Signature Mapping**

Abstract:

This proposed work presents a unique data security protocol for validating digital identity document to verify online attendance in the e-governance systems. The idea here is to secretly embed id-card owner's fingerprint, local and head office copyright signature and owner's joining letter picture within the digital card along with message digest of these authentic data in periodical intervals for complying both authenticity and integrity. Significantly all these authentic signature data is embedded based on hash values generated from sensitive data like id-card number, joining date and birthdate of the employee, local office code and head office department name for more strong authentications. Now at first this authentic id-card is validated at the local office by extracting all the embedded copyright signatures by computing exactly same hash values from those identical sensitive data. In addition, tampering aspect of this id-card is also verified by extracting the embedded message digest data and the recomputed message digest found from all those sensed data. After this first validation phase, the concerned authentic id-card is transmitted to the head office server for the second phase of validation repeating similar signature extraction operations by utilizing identical hash values. Hence this proposed security protocol complies with all the major data security principles like authentication, confidentiality, integrity and non- repudiation in contrast to the existing approaches. Further novelty is also imposed by implementing spatial and transform operation-based hybrid data hiding concept within a single sub-image block for better imperceptibility and robustness. Finally, this enhancement in current data hiding practice is thoroughly demonstrated quantitatively from different angles over the existing approaches.

Date: 21.11.2024

Venue: B Block Seminar Hall Time: 4 pm onwards

This seminar is a part of Faculty Seminar Program of the Institute ***Prosaran***. The faculty, technical and staff members of the Institute are hereby requested to attend the session.

Sd/-
Prof. (Dr.) Sutapa Mukherjee
Principal
B P Poddar Institute of Management & Technology

CC: All HODs, BPPIMT
CC: Dean-Academics, BPPIMT
CC: Dean R&D, BPPIMT
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CC: Registrar, BPPIMT