



तेजपुर विश्वविद्यालय

(केंद्रीय विश्वविद्यालय)

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TEZPUR UNIVERSITY

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Napam, Tezpur - 784 028, Assam, India

## Department of Mathematical Sciences

### Report on research collaboration

between

Dr. Pankaj Kumar Das, Department of Mathematical Sciences, Tezpur University

and

Dr. Lalit K. Vashisht, Department of Mathematics, University of Delhi

#### **Title of collaboration:**

Error locating codes by using blockwise-tensor product of blockwise detecting/correcting codes

#### **Summary of collaboration:**

A collaborative research work was undertaken by Dr. Pankaj Kumar Das and Dr. Lalit K. Vashisht with the aim to study error locating codes by using blockwise-tensor product of blockwise detecting/correcting codes. The main emphasis in this paper is to obtain lower and upper bounds on the number of parity check digits of a linear code that corrects  $e$  or less errors within a sub-block. By introducing the concept of blockwise-tensor product of matrices, it was proposed classes of error locating codes that can detect  $e$  or less errors within a sub-block and locate several such corrupted sub-blocks.

#### **Duration of collaboration:**

The collaboration started in the month **July, 2015** and culminated in the form of a published research paper in the month of **April, 2016**.

#### **Details of collaboration:**

Details of collaboration could be found in the article-

Error locating codes by using blockwise-tensor product of blockwise detecting/correcting codes, **Khayyam J. Math.**, 2 (2016), no. 1, 6--17 DOI: 10.22034/kjm.2016.14572.



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