

**Invitation to M.Tech. Thesis Defense of Neetesh Chauhan: June 18, 2022 (Saturday): 04:30 PM-05:30 PM IST**

In Partial Fulfilment of the Requirements for the Degree of

**M.Tech. CB**

**Neetesh Chauhan (MT20212)**

Will defend his thesis

**Title: “Insight for RNA-DNA interaction for regulation of activity of repeat elements and genes”**

IIIT-D Faculty and Students are invited

**Date: June 18, 2022 (Saturday)  
Time:** **04.30 PM-05.30 PM IST**

**Meeting Link:** [**http://meet.google.com/gcz-bvcb-vyj**](http://meet.google.com/gcz-bvcb-vyj)

**Examiner: Internal:   Debarka Sengupta**

**~~External~~/Internal: N Aurl Murugan**

**Advisor: Vibhor Kumar**

**Co-Advisor NA**

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**Abstract**

The RNA world is yet to be understood properly, and the same goes for repeat regions as there has been much research going on understand their regulatory roles. Here, we have analyzed the RNA-DNA interaction and their relationship with regulation in an effort to better understand this unexplored data. We explored the possibility of relationship among different repeat family through the mechanism of RNA-DNA interaction. We also added the dimension of histone modifications to understand the effect of many non-coding RNA through binding to DNA. We explored the different pathways being affected by binding of a few non-coding RNA to DNA. Our analysis highlighted, the bias in dna binding pattern of GAS5 known to be involved in various diseases including diabetes mellitus, cancer, and bone disorders. Our analysis also highlighted transcription factors which could be involved in binding of a few non-coding RNA to DNA.