

# Some Problems on Stability and Synchronization of Integer and Fractional order Neural Networks



*The thesis submitted in partial fulfilment*

*for the Award of Degree*

*DOCTOR OF PHILOSOPHY*

*by*

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**Sapna Baluni**



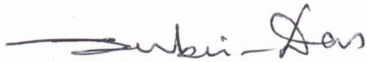
*Dedicated*  
*To*  
*My Parents*  
*&*  
*My Sisters*



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It is further certified that the student has fulfilled all the requirements of Comprehensive Examination, Candidacy and SOTA for the award of Ph.D. degree.



24.05.2024.

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## DECLARATION BY THE CANDIDATE

I, **Sapna Baluni**, certify that the work embodied in this thesis is my own bonafide work and carried out by me under the supervision of **Prof. Subir Das** from **July, 2019** to **May, 2024** at the **Department of Mathematical Sciences, Indian Institute of Technology (Banaras Hindu University), Varanasi**. The matter embodied in this thesis has not been submitted for the award of any other degree/diploma. I declare that I have faithfully acknowledged and given credits to the researchers wherever their works have been cited in my work. I further declare that I have not willfully copied any other's work, paragraphs, text, data, results, etc., reported in journals, books, magazines, reports dissertations, theses, etc., or available at websites and have not included them in this thesis and have not cited as my own work.

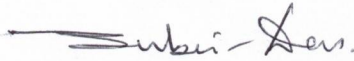
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It is certified that the above statement made by the student is correct to the best of my/our knowledge.



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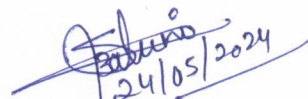
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