Certificate

This is to certify that the thesis entitled **"Chaotic Properties of Dynamical Systems"** being submitted for the award of the degree of Doctor of Philosophy in Mathematics by **Yadav Naveenkumar S.** (Reg. No: FOS/2178, Date: 28-01-2020), incorporates the original research work carried out by him under my guidance and no part of this work has been previously submitted by him to any other University or Institution for the same or any other degree.

He has put into research for the requisite number of terms as required by the University.

Dr. Sejal K. Shah

(Guide)

Assistant Professor

Department of Mathematics, Faculty of Science

The Maharaja Sayajirao University of Baroda

Vadodara-390002.

Forwarded through:

Head

Department of Mathematics

Vadodara

July 2024

Certificate

This is to inform that the following publications have resulted from the research work of my Ph. D. student Yadav Naveenkumar S., who wishes to submit the thesis entitled **"Chaotic Properties of Dynamical Systems"** to the Department of Mathematics, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara for the award of the degree of Doctor of Philosophy in Mathematics.

1. N. Yadav and S. Shah, "Topological weak specification and distributional chaos on noncompact spaces", International Journal of Bifurcation and Chaos, 32(4), 2250048 (2022). ISSN: 0218-1274 (**SCOPUS** Indexed, **SCIE Journal**, 2022 Impact Factor: **2.2**)

2. N. Yadav and S. Shah, "Li-Yorke chaos and topological distributional chaos in a sequence", Turkish Journal of Mathematics, 46(4), 1360–1368 (2022). ISSN: 1300-0098 (**SCOPUS** Indexed, **SCIE Journal**, 2022 Impact Factor: **1.0**)

3. N. Yadav, "Weaker forms of specification for maps on uniform spaces", Dynamical Systems, 39(1), 150–165 (2024). ISSN: 1468-9367 (**SCOPUS** Indexed, **SCIE Journal**, 2022 Impact Factor: **0.5**)

Dr. Sejal K. Shah
(Guide)