

# Homeomorphisms and Their Role in Classifying Topological Spaces



## PROJECT WORK

*Submitted in partial fulfillment of the requirements for the award of Degree  
of Master of Science (Mathematics)  
2024*

**Under the supervision of:**

**Dr. R.S. Pundhir**

**Submitted By:-**

**KARN PRATAP SINGH**

**Department of Mathematics,  
Faculty of Science  
J.S University  
Shikohabad, Firozabad  
U.P, India  
283135**

# Declaration

I, [KARN PRATAP SINGH], hereby declare that the project work titled "**Homeomorphisms and Their Role in Classifying Topological Spaces**" submitted to J.S.University Shikohabad, is an original work conducted by me under the guidance of **Dr. R.S. Pundhir**. The information and data presented in this project are true to the best of my knowledge and belief.

I also declare that this project has not been submitted, either in part or full, for the award of any other degree or diploma to any other institution or university.

**Name:** [KARN PRATAP SINGH]

**Roll Number/ID:** [224020304012]

# Acknowledgment

I would like to express my deepest gratitude to all those who contributed to the successful completion of my **M.Sc.** project work.

Firstly, I would like to thank **Dr. R.S. Pundhir**, my project supervisor, for their invaluable guidance, support, and encouragement throughout the course of this work. Their insights and expertise were crucial in shaping the direction of this research.

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This work is dedicated to everyone who has been a part of my academic and personal growth.

Thank you.

## Certificate of Completion

This is to certify that **KARN PRATAP SINGH** has successfully completed the **Research Project on Homeomorphisms and Their Role in Classifying Topological Spaces** conducted by Mathematics Department .

This project was conducted under the guidance of **Dr. R.S. Pundhir** and demonstrates a significant contribution to the field of **Mathematics**.

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[Supervisor's Signature]  
[04/06/2024]