

Acknowledgements

First, I would like to thank the Almighty God, for being with me. I would like to thank my family for their continuous support and wishes, and for being with me during this PhD journey.

I take this opportunity to express an immense gratitude to my Ph.D. supervisors “Dr. Ambesh Dixit and Dr. Kirankumar Hiremath” for considering me as a doctoral student at IIT Jodhpur. They motivated me throughout with their precious advice, and fruitful discussions that helped me to move forward towards completion of this work. I admire them for providing me a great platform for research and without their excellence, wisdom and supervision this work would never be complete.

I am also thankful to my doctoral committee members Dr. Laltu Chandra (IIT Jodhpur), Dr. Ashutosh Alok (IIT Jodhpur) and Dr. V. R. Narayana (IIT Jodhpur) for their constructive criticism and kind support during the work.

I would also like to thank my seniors Dr. Belal Usmani, Dr. Lokesh Saini and Mr. Rohitash Kumar for encouraging me and making me familiar with the research environment. I would also like to thank Prof. Arie Zaban, Dr. Shay Tirosh, and Dr. Simcha Mier from BarIlan University, Israel for their guidance and support during my PhD journey. Furthermore, I would like to thank my friends, lab-mates and colleagues for making this journey joyful.

I, hereby, thank all the scientists and professors, who helped me, providing research guidance & support during my research work. My acknowledgement also extends to all those people, apart from aforementioned whom I was fortunate enough to meet with, during this journey and who enriched me with their support and knowledge.

I thank Ministry of Human Resource Development (MHRD), Government of India for provided me financial support during my stay at IIT Jodhpur, Department of Science and Technology (DST) for providing financial support for my international visit to Israel.

Anurag Sahu
Ph.D. Student

