

---

## ACKNOWLEDGEMENTS

---

I am thankful to all those persons, some of whom I even do not know in person, but whose efforts, directly or indirectly, facilitated me in completing the research.

To name a few, I express my sincere thanks to my thesis supervisors Dr. Ashutosh Panday, Dr. D. K. Gupta and Dr. Musleh B. Al-Otaibi for their guidance and support.

I am grateful to several faculty members at UPES including Dr. Shrihari, Dr. Kamal Bansal, Dr. D.N. Sarraf, Dr. Alok K. Sexena, Dr. S. K. Gupta, Dr. Vijay and other FRC members who offered their suggestions on my doctoral research work at various stages.

I am thankful to numerous researchers including Dr. Musleh and Dr. Al Mahdi whose research supported my work. My relatives and friends including Mr. Arif, Mr. Danish, Mr. Abdul Gafoor, who helped me cross-checking large data that I entered into MS Excel sheet, deserve my special thanks. I am thankful to all current and previous UPES personnel including Ms. Rakhi, Dr. Anjali, Dr. Gupta, Dr. Aparna, Dr. Vikas Prakash, whose administrative support helped my PhD work to reach a conclusive point.

I take the opportunity to acknowledge support from Dr. A. R. Quaff, Dr. A. Ramakrishna, Dr. S. R. Das, Mr. Abrar, Mr. Abid, Mr. Abdus Samad Anwar and Mr. Ravindra.

I am also thankful to my seniors including Mr. Waseem Qureshi, Mr. Mukhtar Awan, Dr. Rihani, Mr. Shekhar Balvalli, Mr. Prasad, Mr. Sinha, Ms. Shazia and numerous colleagues who have motivated my professional learning that was vital for completing the work.

Last but not least, my family members, particularly my parents, and all my well-wishers across the world deserve my gratitude.

Tarique Mohammad Yusuf