

# **Study of Mechanical, Structural, Optical, and Luminescence Properties of Silicate and Phosphate-based Tint Glass Matrix for Photonic, Optoelectronic, and Building Envelope Applications**



**Thesis submitted in partial fulfillment for the Award of Degree Doctor of Philosophy by**

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I, Debajyoti Mahapatra, attest that the research contained in this doctoral dissertation is entirely original with myself working under the guidance of associate Professors Dr. Preetam Singh from July 21, 2018, to July 20, 2024, at the Indian Institute of Technology (BHU), Varanasi. This thesis' content has never been forwarded for consideration for another degree or diploma. I thus affirm that, everywhere their works are cited in my work for this thesis, I have dutifully thanked and credited the study participants. I additionally swear that I have not incorporated any other's work, any chapters, text, information, outcomes, etc., published in journals, books, magazines, reports, dissertations, theses, or accessible online, in my thesis.

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