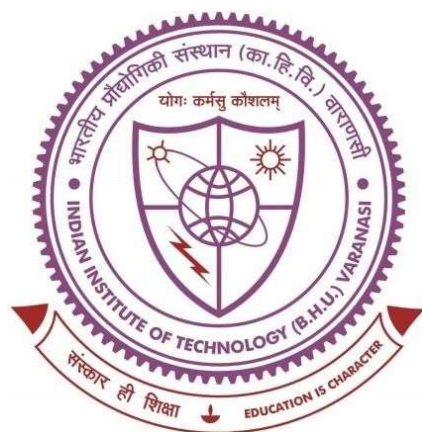


Synthesis, Characterization and Tribological Applications of Nanocomposites of Some 2D Nanomaterials



**THESIS SUBMITTED IN PARTIAL FULFILLMENT FOR THE
AWARD OF DEGREE**

DOCTOR OF PHILOSOPHY

By

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my
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&
Prof. R. B. Rastogi...*

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Nivedita Shukla

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List of Notations, Symbols, and Abbreviations

μ	Coefficient of friction
P	Frictional Power loss
AFM	Atomic force microscopy
ASTM	American standard of testing machine
BDC	1,4- Benzene dicarboxylic acid
CTAB	Cetyltrimethylammoniumbromide
C-MVO	Cobalt doped manganese vanadate
CNMs	Carbon nanomaterials
CCO	Calcium doped Ceria
CNTs	Carbon nanotubes
COF	Coefficient of friction
CQDs	Carbon quantum dots
CS	Carbon spheres
DLC	Diamond-like carbon
EDS	Energy Dispersive X-ray Spectrometry
FE-SEM	Field emission-scanning electron microscopy

FTIR	Fourier transforms infrared spectroscopy
GO	Graphene oxide
GQDs	Graphene quantum dots
MEMS	Micro-electro-mechanical systems
MCs	Metal Chalcogenides
MoS₂	Molybdenum disulfide
MWD	Mean wear scar diameter
MWV	Mean wear scar volume
NEMS	nanoelectro-mechanical systems
NPs	Nanoparticles
NTs	Nanotubes
PO	Paraffin Oil
PEG	Polyethylene glycol

PO	Paraffin oil
QDs	Quantum dots
rGO	Reduced graphene oxide
SDS	Sodium dodecyl sulfate
SEM	Scanning electron microscopy
TEA	Triethylamine
TEM	Transmission electron microscopy
UV-Vis	Ultraviolet visible Spectroscopy
VSe₂	Vanadium diselenide
WS₂	Tungsten disulfide
XPS	X-ray Photoelectron Spectroscopy
ZDDP	Zinc dialkyl dithiophosphate
ZIF	Zeolitic imidazolic framework
ZnO	Zinc oxide

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