ABBREVIATIONS AND NOMENCLATURES

ParameterDescription1DOne Directional2DTwo Directional3DThree DirectionalANOVAAnalysis of Variance

APBICV A number of Ply, B° Inclination angle, C in Hg Vacuum

ARTM Advanced Resin Transfer Molding

ASTM American Society for Testing and Materials

A-VARTM Advanced VARTMP

BD Bi Directional

BIRTM Bladder Inflation Resin Transfer Molding

BM Bending Moment BS Bending Strength

CAPRI Controlled Atmospheric Pressure Resin Infusion

CFRP Carbon Fiber Reinforced Plastic CMC Ceramic Matrix Composites CO-RIF Combined Resin Film Infusion

DAQ Data Acquisition

DB-VARTM Double Bladder Vacuum Assisted Resin Transfer Molding

DBVI Double Bag Vacuum Infusion

DMA Direct Memory Access
DOE Design of Experiments
DPI Dynamic Pulse Infusion

DPRTM Differential Pressure Resin Transfer Molding

FRC Fiber Reinforced Composite
FRP Fiber Reinforced Plastic
FVF Fiber Volume Fraction

GFRP Glass Fiber Reinforced Plastic

GSM Gram per Square Meter HFVF High Fiber Volume Fraction

HL Hand Layup

HPM High Permeable Media

HP-VARTM High Pressure Vacuum Assisted Resin Transfer Molding

ILSS Inter Laminate Shear Stress

IS Impact Strength

KFRP Kenaf Fiber Reinforced Plastic LCM Liquid Compression Molding

LOI Loss of Ignition

LVDT Linear Variable Differential Transformer
MACM Magnetic Assisted Resin Transfer Molding

MEKP Methyl Ethyl Ketone Peroxide

MMC Metal Matrix Composite

MPa Mega Pascal

NSA Non Saturated Viscosity

NTEC N number of layers, resin supply from Top and vacuum from Edge to

Centre

PAW Pressure Application Window

PI Pressurised Infusion

PLC Programmable Logic Controller
PMC Polymer Matrix Composite
PMP Porous Molding Process
RFI Resin Film Infusion

RI Resin Infusion

RIFT Resin Infusion Flexible Tooling

RPM Revolution Per Minute
RT Room Temperature
RTM Resin Transfer Molding
SA Saturated Viscosity

SCRIMP Seeman Composite Resin Infusion Molding Process

SEM Scanning Electron Microscope

SPI Static Pulse Infusion
TDR Time Domain Refectory

TEM Transmission Electron Microscopy

TERTM Thermal Expansion Resin Transfer Molding

THF Tetra Hydro Furan
TM Tensile Modulus
TPI Thread Per Inch
TS Tensile Strength
UD Uni Directional

VAP Vacuum Assisted Process

VARI Vacuum Assisted Resin Infusion

VARTM Vacuum Assisted Resin Transfer Molding

VB Vacuum Bagging
VERITY Vacuum Resin Infusion
VI Vacuum Infusion

WLVB Wet Layup Vacuum Bagging

XGYRZV X GSM, Y RPM and Z in Hg Vacuum
XLWID X number of Layers With degassing
XLWOD X number of Layers With Out degassing