




# INDIAN NAVAL SHIP SHIVAJI

Lonavala, Maharashtra, India - 410402.

## Centre of Marine Engineering Technology

*This is to certify that* HIMACB HALANGODA  
*Rank* LT *No.* NRE 3412 *has successfully*  
*completed the* MARINE ENGINEERING SPECIALISATION COURSE(60.086)  
*of* 79 *weeks duration on* 29<sup>TH</sup> *day of* DEC 2018.

  
(Gaurav Seth)  
Commander

Commander (TADG)

Date \_\_\_\_\_



  
(A.K. Chakrabarti)  
Captain

Officer - in - Charge, CMET  
for Commanding Officer

RIGOROUS TRAINING | DEVELOP COMPETENCE  
MOULD MARINE ENGINEERS | SUSTAIN EXCELLENCE



This is to certify that the following subjects are covered during the 79 weeks of Marine Engineering Specialisation Course at INS Shivaji.

*Auxiliary Machinery & System*

Auxiliary Machinery, Machinery Construction, Control Engineering & Control System, Gearing Shafting & Propellers, Welding Technology.

*Diesel Engine*

Diesel Engine principles, Maintenance, Trends, EHM, Testing & Tuning, MTU, Radial Pielstic Engine, Diesel Engine Auxiliaries.

*Steam Machinery*

Steam Engines, Boilers, Evaporators & Systems, Steam Turbine & Steam Auxiliaries.

*Gas Turbine*

Gas Turbine & associated systems, Gas Turbine practice, General layout onboard IN Ships, GT Construction, Case studies of defects.

*Miscellaneous*

Practical on ICE, Steam, GT's & Auxiliary Machinery, Computer Applications, Hull Maintenance, Advance Marine Engineering topics, Reactor Technology, Control Concepts, Basic Electronics & Instrumentation, General Controls & Type Controls.



(Varun G. D.)

Sub Lieutenant

Staff Officer (Exam & Analysis)

for Commanding Officer

INS Shivaji

Date \_\_\_\_\_