Commodore Mahmudul Malek was commissioned in the Operations Branch of Bangladesh Navy on January 1, 1992. The career of the officer is uniquely blended with Command, Staff and Instructional appointments. He was Staff Officer (Operations) to all the Operational Commands of Bangladesh Navy.

The officer attended various courses at home and abroad. He did Junior Command and Staff Course (JCSC) from School of Infantry and Tactics (SI&T), Sylhet. He completed his specialization in Communication from PNS BAHADUR, Pakistan. He is a graduate of Defence Services Command and Staff College, Mirpur, Dhaka and obtained Master in Defence Studies from the National University with Distinction. He is a distinguished alumnus of US Naval Staff College, Newport, Rhode Island. He is also a proud alumnus and Directing Staff (DS) of National Defence College (AFWC Wing), Mirpur. He is the top distinguished graduate of National Defence University, Islamabad, Pakistan of 2021 and obtained Masters in National Security and War Studies with distinction. His sea appointment eventually bloomed through the commanding of a Guided Missile Frigate BNS ABU BAKR (Type 053H2). The officer worked under the 'Blue Beret' in the UN Mission in Ivory Coast as a Military Observer.

Commodore Mahmudul Malek has served at Naval Headquarters as Director of Personnel Services (DPS), Director of Naval Operations (DNO), and Director of Naval Plans (DNP). Prior to the present portfolio as the Managing Director of Bangladesh Shipping Corporation, Commodore Malek held the prestigious appointment as the Commander Submarine (COMSUB). His write-up was published in defence journals. He indulges his leisure time in reading books. He is happily married and blessed with two sons.