THE NASS INHOUSE NEWSLETTER

LA OLA [THE WAVE]

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INSIDE THIS ISSUE

FROM THE ADVISOR'S DESK

To encourage the creativity and writing aptitude in the students and to give them a platform to express their original thoughts NASS (Naval Architecture Students Society) brings out this magazine named **La Ola** (New Wave) in which the articles on different subjects by students, teachers and the employees are published.

We are in the post modern era where science and technology are the corner stones on which the edifice of society rests. Education as a key to this change in the post globalization era can become effective only if it is wedded to the technological advances and "La Ola" brings all that into lime light. "La-Ola" another challenging milestone in the history of IMU has successfully completed one year.

I congratulate the entire team for the effort and hard work put in to publish this beautiful, colorful magazine. Kudos..!!

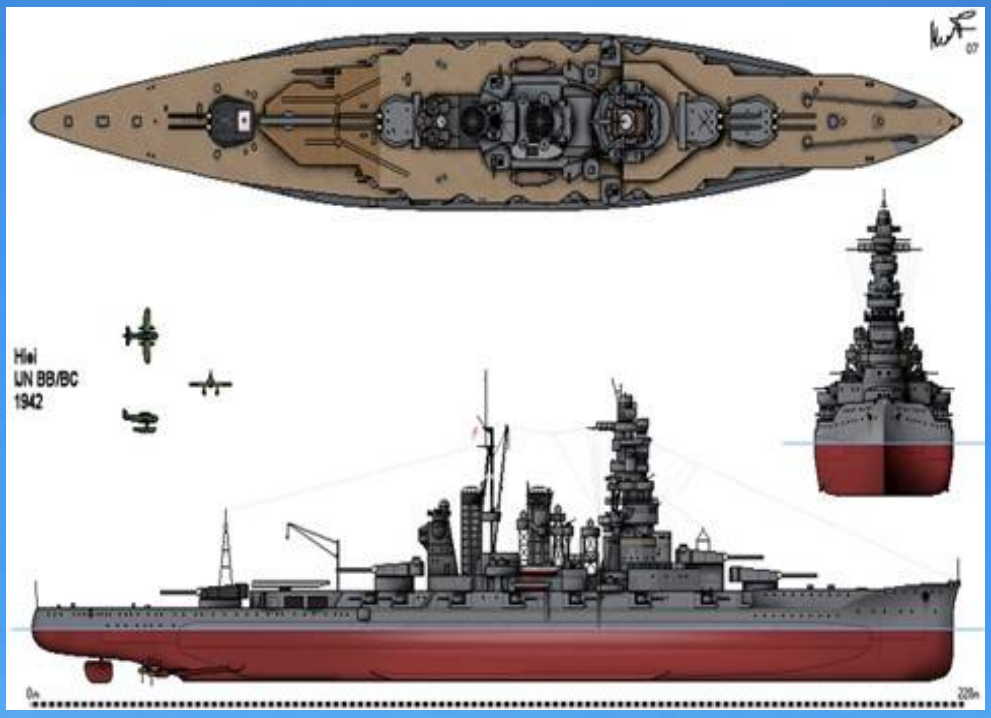
By launching "La Ola" the student body has taken the first proverbial steps to bring the students face to face with the facts and information and also introduce them to the vast frontiers of knowledge and has been attaining great success.

The magazine provides information and interesting articles on emerging technologies in 'Tech zone' & 'Non Tech zone', apart from this there is 'student buzz' brings in all the buzz of the students life in the campus. It is also meant to provide information on the different aspects of the college and its programmes for the benefit of students and public at large. The magazine is published monthly (only electronic print). The magazine has been brought out every month with 6 pages, and it has been upgraded to 10 pages from September 2011 onwards with additional feature "INSIGHT", mainly focusing on ship and shipping industry around the world

I hope the readers are finding it interesting.

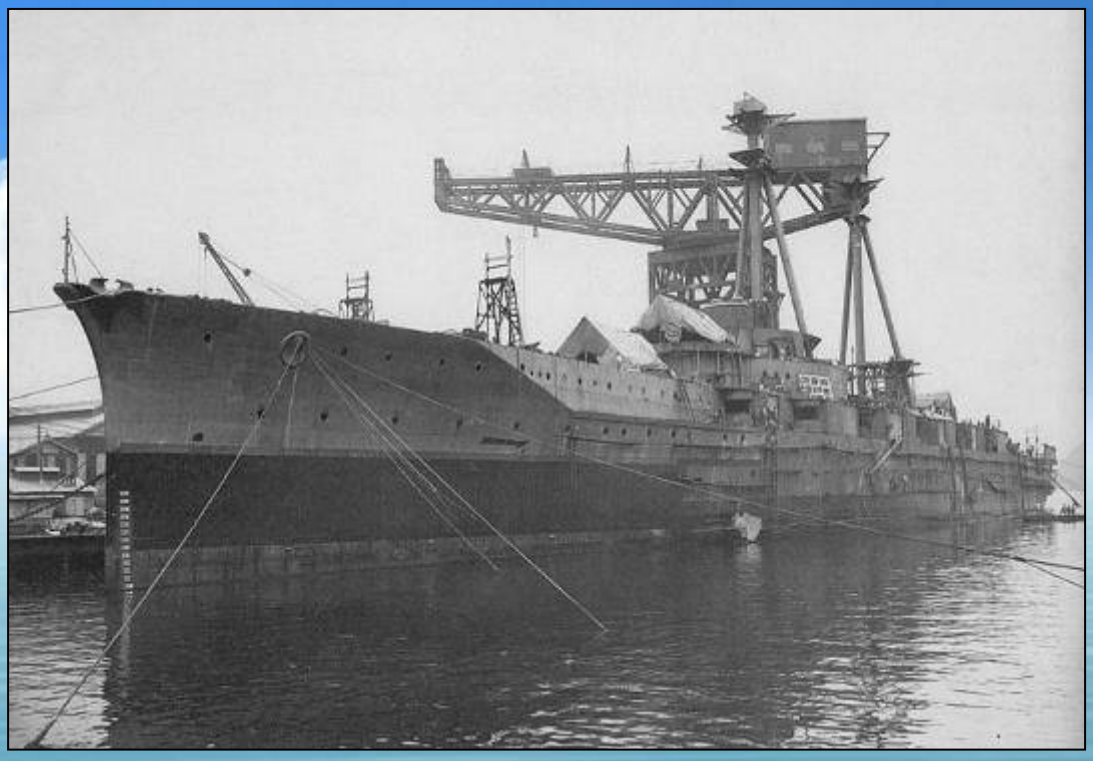
Suggestions to improve the features or quality of info is most welcome.

Japanese battle ship '*Hiei*'



Hiei was a warship of the Imperial Japanese Navy during World War I and World War II. Designed by British naval architect George Thurston, she was the second launched of four *Kongō*-class battle cruisers, among the most heavily armed ships in any navy when built. Laid down in 1911 at the Yokosuka Naval Arsenal, *Hiei* was formally commissioned in 1914. She patrolled off the Chinese coast on several occasions during World War I, and helped with rescue efforts following the 1923 Great Kantō earthquake. Starting in 1929, *Hiei* was converted to a gunnery training ship to avoid being scrapped under the terms of the Washington Naval Treaty. She served as Emperor Hirohito's transport in the mid-1930s. Starting in 1937, she underwent a full-scale reconstruction that completely rebuilt her superstructure, upgraded her engine plant, and equipped her with launch catapults for floatplanes. Now fast enough to accompany Japan's growing fleet of aircraft carriers, she was reclassified as a fast battleship. On the eve of World War II, she sailed as part of Vice-Admiral Chuichi Nagumo's Combined Fleet, escorting the six carriers that attacked Pearl Harbor on 7 December 1941.

As part of the Third Battleship Division, *Hiei* participated in many of the Imperial Japanese Navy's early actions in 1942, providing support for the invasion of the Dutch East Indies as well as the Indian Ocean raid of April 1942. During the Battle of Midway, she sailed in the Invasion Force under Admiral Nobutake Kondō, before being redeployed to the Solomon Islands during the Battle of Guadalcanal. She escorted Japanese carrier forces during the battles of the Eastern Solomons and Santa Cruz Islands, before sailing as part of a bombardment force under Admiral Kondō during the Naval Battle of Guadalcanal. On the evening of 13 November 1942, *Hiei* engaged American cruisers and destroyers alongside her sister ship *Kirishima*. After inflicting heavy damage on American cruisers and destroyers, *Hiei* was crippled by enemy vessels. Subjected to continuous air attack, she sank on the evening of 14 November 1942.



By Swastik Pattnaik

Source: Internet

INS SATPURA TO GIVE A SHOT IN THE ARM TO NAVY'S STRIKE CAPABILITY

Mazagaon Dock Limited, the country's premier defense shipbuilding Yard is delivering '***Satpura***', the second Shivalik Class Stealth Frigate, to the Indian Navy on Saturday 20 August 2011.

'Satpura', is a state-of-the-art warship and embodies and heralds a paradigm shift in indigenous efforts in the design and construction of surface combatants for the Indian Navy. ''Satpura' is equipped with advanced weapons and sensors enabling her to perform as a potent multi mission combat platform.

'Satpura' belongs to the prestigious class of frigates, that are the first ever indigenously designed and build frigates building India into an elite league. These frigates have been designed to reduce all her air borne and water borne signatures. A combination of the stealth features combined with a formidable weapon sensor suite have catapulted India and Indian navy into a elite comity of nations capable of designing stealth ships of international standards.The combined Diesel or gas propulsion system with a range of over 5000b nautical miles at a cruising speed of 18 knots enable Shivalik class frigates to remain at sea for long periods.

The Navy has to maintain eternal vigilance along our long vulnerable coast line and features of the frigates set them apart. 'Satpura' with its new fire and muscle power and with her ability to deal with multiple threat environment is well equipped for both area and point defense system and will undoubtedly enhance all round capability of Indian Navy. Being stealth design, protection of these frigates will not be that easy. Further, with sleek and shaper lines, these frigates can operate at higher speed. These features coupled with a weapon suite with three dimensional attack capability make Shivalik class Frigates a highly potent platform at sea and they truly represent a quantum jump both in terms their potency and higher endurance at sea.

Continental and Asian gourmet meals, including freshly baked bread and homemade ice cream. The accommodation arrangements for 35 officers and over 225 members crew have been provided by the Indian conglomerate Godrej and meets the industry standards of crew comfort and space management. Conceived and designed by the design team of the Indian navy, Satpura will be among the mainstay frigates of the force for the first half of the 21st century . The design features of these indigenous stealth frigates will enhance India's capability to launch surprise attacks on enemy targets. A stealth warship was designed so that they remain undetected to enemy electronic sensors. Her shape is designed to evade detection by radar, it is engineered to give off minimal infrared emissions ; and every piece of equipment on board , from engines to toilet flushes , are designed to work silently so that the ship cannot be sensed by the enemy's acoustic sensors. These stealth features will allow INS Satpura to come close to enemy positions undetected and inflict maximum damage.

The commissioning of Satpura is also a telling tale on indigenous capability for building front line warships. MDL commenced its chequered history from a small dry dock that serviced the British east India company ships and today it has grown from its humble beginnings to a colossus that can construct and deliver and warships of world class quality. MDL will give pivotal support with its ship manufacturing capability as the Indian navy seeks to increase its strategic footprint and become more-self reliant . Keeping pace with its ambition , India as a nation gaining self reliance through indigenization of the ship building industry and the country is poised to in turn a new era with as many as 36 warships of varied classes and rolls under construction indigenously. Some of these ships are the largest warships to be built in the country and are capable of multi-strata warfare , with weaponry for air, surface and subsurface roles. The Indian navy has embarked on a dedicated course to achieve self-reliance and MDL is keeping pace with the requirements and aspirations of the nation. The shipyard along with GRSE Kolkata, Goa shipyard ltd goa and Hindustan shipyard ltd, vizag will fund the national institute for research and development in Defence shipbuilding(NIRDESH) at Kozhikode, Kerala. Potent surface combatants like ***ins satpura*** will add cutting edge technology to the naval fleet & would serve long and well to support nation's interests. On commissioning , 'Satpura' will undoubtedly be a formidable force in the service of the nation and can play a vital role in adding further teeth to blue water capability of the Indian navy.

Source : The Indian Express

The Boss of the Bosses "*STEVE JOBS*"

an apple a day ...

Steven Paul Jobs (born February 24, 1955) is an American business magnate and inventor.

He is the Chairman of the Board of Apple, which he co-founded in 1976. Apple is leading the consumer technology world with its revolutionary iPhone and App Store, its family of iPod media players and iTunes media store, and its Mac computers and iLife and iWork application suites. Apple recently introduced iPad 2 which is defining the future of mobile media and computing devices.

Steve also co-founded and was the CEO of Pixar Animation Studios, which created some of the most successful and beloved animated films of all time including Toy Story, A Bug's Life, Monsters, Inc., Finding Nemo, The Incredibles, Cars and Ratatouille. Pixar merged with The Walt Disney Company in 2006 and Steve now serves on Disney's board of directors. He consequently became Disney's largest individual shareholder at 7% and a member of Disney's Board of Directors.

He is among the few entrepreneurs who himself design technology this is well supported by his track record, Jobs is listed as either primary inventor or co-inventor in 338 US patents or patent applications related to a range of technologies from actual computer and portable devices to user interfaces (including touch-based), speakers, keyboards, power adapters, staircases, clasps, sleeves, lanyards and packages. This is actually where the strength of his company rests.

There is a very interesting fact about him and i.e. even though Jobs earned only $1 a year as CEO of Apple, he holds 5.426 million Apple shares(50.1% of the shares), as well as 138 million shares in Disney (which he had received in exchange for Disney's acquisition of Pixar). His estimated his net wealth at $5.1 billion in 2009, making him the 43rd wealthiest American.

Looking at his child hood he was born in was born in San Francisco and was adopted by Paul and Clara of Mountain View, California, who named him Steven Paul. Jobs biological parents were Abdulfattah John Jandali Syrian Muslim and mother Joanne Simpson, an American.
In 1976, Steve Jobs, Steve Wozniak and Ronald Wayne, with later funding from a then-semi-retired Intel product-marketing manager and engineer A.C. "Mike" Markkula Jr., founded Apple. Prior to co-founding Apple, Wozniak was an electronics hacker. Jobs and Wozniak had been friends for several years, having met in 1971, when their mutual friend, Bill Fernandez, introduced 21-year-old Wozniak to 16-year-old Jobs. Steve Jobs managed to interest Wozniak in assembling a computer and selling it. As Apple continued to expand, the company began looking for an experienced executive to help manage its expansion.

In 1978, Apple recruited Mike Scott from National Semiconductor to serve as CEO for what turned out to be several turbulent years. In 1983, Steve Jobs lured John Sculley away from Pepsi-Cola to serve as Apple's CEO, asking, "Do you want to sell sugar water for the rest of your life, or do you want to come with me and change the world?"

SOURCE: Internet

DNV to class world's most advanced seismic vessel

Ramform W-class, an offshore 3D seismic vessel of PGS

The new, fifth generation Ram form series seismic vessels of PGS is built at Mitsubishi Heavy Industries Ltd., Japan. The order for two seismic vessels plus two options which was signed in Oslo earlier this year. When completed in 2013 these vessels will be the most technically advanced seismic vessel featuring 3D seismic data acquisition and analysis capability. The vessels will be built to DNV class.

The new seismic vessels are the first in fifth generation Ram form series, "Ram form W-class". Developed to have length of 104 meter and a very wide breadth of 70 meter, the series adopted diesel electric for the main propulsion system for quiet operation. Based on the design of the current Ram form fleet, capabilities along several key parameters were improved.

"These new generation series are developed in much bigger size compared to the previous Ram form series. One of the main reasons to develop the new Ramform design in wider hull form was to increase the stability and results of PGS's model tests on these new hull shape prove that these new design give better stability compared to the previous Ramform series," elaborates Johan Tutturen, DNV Country Manager, Japan.

The advanced seismic technology applied to these vessels are targeted for the fast growing High Density segments which are driven by deep water exploration and production in geologically complex areas such as Brazil, West Africa and the Gulf of Mexico and also opening up new market in the North Sea. Large spreads, long streamers and towing efficiency are the important technical issues to be overlooked in the High Density segment.

DNV is to class the two Ram form series seismic vessels with advanced verification works including hydrodynamics analysis required by extreme principle dimensions and FMEA required by RP notation. The new "Ram form-W" vessels will have class notation +1A1, SPS, ICE-C, E0, HELDK, RP, CLEAN DESIGN,TMON, BIS, NAUT-AW, VIBR, COMF-C(3)V(3).

"DNV has an extensive experience with classifying the hull shapes for previous Ramform series. This is an opportunity for DNV to capitalize our experience with the Ramform series and to help the owner and the builder to further manage the possible risk associated with these unique, tailor-made vessels," concludes Johan Tutturen.

Source: DNV

First Chinese built Ulstein PX105 delivered to Bourbon Offshore

Bourbon Front, the first of four platform supply vessels of the PX105 design from ULSTEIN built at Zhejiang Shipbuilding Co. Ltd., was delivered to Bourbon Offshore Norway at 6 September 2011.

The vessel features an overall length of 88.80m, breadth of 19.00m, DWT of 4250T, and maximum speed of 15.5 knots. Bourbon Front is designed with a hotel complement with permanent capacity for 25 persons.

The hull with ULSTEIN X-BOW® combined with diesel-electric propulsion systems ensure outstanding performances with regards to fuel consumption, sea-keeping, station-keeping, speed and cargo capacity.

The cargo system ensures safe and efficient loading and discharging of the vessels

The Multi Application Cargo Solution (MACS) and product tank configurations give a major increase and flexibility in cargo capacity. The vessel is equipped, built and certified according to IMO Class II for Dynamic Positioning.

ULSTEIN PX105 is designed to minimize the environmental impact and built according to Det Norske Veritas CLEAN DESIGN class notation. Catalytic reactors for minimum NOX emissions are installed. The vessel has a Green Passport complying with IMO ship recycling recommendations.

Source: Ulstein

STX Finland signs contract for two well intervention vessels for Eide Marine Services

STX Finland Oy and Eide Marine Semi AS, a subsidiary of Eide Marine Services A/S, have signed a contract for the outfitting, completion and delivery of two highly sophisticated well intervention vessels with an aggregate contract value exceeding EUR 300 million.

The technically advanced well intervention vessels with deadweight of 31,000 tons will have a length of 122 meters and a width of 45 meters. The vessels are designed to operate in rough open sea conditions on Brazilian continental shelf. Vessels have innovative hull forms securing high sea keeping characteristics together with DP3 dynamic positioning system and thruster arrangement. Large deck area provides opportunity to arrange all well serving equipment in most efficient way.

The project will create a high outfitting work load for STX Finland and its network. The work on the first hull will begin at STX Rauma shipyard in April 2012 and on the second hull in June 2012. The intervention vessels will be delivered from Rauma shipyard in March 2013 and June 2013. The contract is subject to certain financing conditions.
The contract shows STX Finland's ability to provide competitive services and win significant contracts in this highly sophisticated and demanding offshore business segment. The contract is also an important part of STX Finland's diversification strategy, in which the company is continuing to expand its operations into new business areas such as offshore business segment.

"The outfitting contract for Eide Marine Services is a very important project for STX Finland. It shows that our strategic plan to expand our product and services portfolio, and to improve our global competitiveness and presence, has been successful", says Timo Suistio, COO of STX Finland. "The project is very challenging both in terms of amount of outfitting work and the management of several global networking entities." continues Suistio.

Source: STX Europe

Piracy Quick Reference Guide released by ABS

In support of the maritime community's efforts to protect seafarers against acts of piracy, ABS has prepared a quick reference guide (QRG) to assist ships' crews in implementing
the industry's "Best Management Practices for the Protection of Seafarers from Somali Based Piracy," commonly referred to as BMPs. Designed specifically for onboard use, the QRG summarizes the recently published version 4 of the BMPs in a user-friendly format that can assist the Master and the Ship Security Officer in preparing the vessel for transit through a high-risk area. It also identifies actions to take should the vessel and its crew be attacked.
"This Guide is another tool ship operators can use against the menace of piracy and hijacking" says Hemant Juneja, ABS Director of Management Systems Certification. "It is not intended to replace the BMPs but rather act as a supplement designed especially to give the crew a quick reference guide for protection against these threats. It can also be used as a training tool in shipboard drills and exercises."
The laminated, pocket-size Guide will be available in ABS' global offices beginning in early September.

Source: ABS

NSCSA receives new chemical tanker NCC NASMA

The National Shipping Company of Saudi Arabia announces that its 80% owned subsidiary company The National Chemical Carriers Ltd. Co. (NCC) received on Thursday,

8th September 2011 in Korea a new chemical tanker named NCC NASMA with DWT of 45,000 tons from SHINASB (previously SLS) of South Korea, as part of 9 vessels previously contracted by NCC from this yard during 2006 - 2007 for a total value of approximately (SAR 1,721 Millions).

The financial impact of the delivered tanker on the company revenue will appear starting third quarter of the current financial year.

NCC has additional 6 vessels under construction at SHINAsb in South Korea for a value of (SAR 1,159 Millions) with deliveries expected during 2011/12, in addition to one large chemical tanker of 75,000 DWT, to be constructed at Daewoo Shipbuilding and Marine Engineering Co. Ltd. (DSME) of South Korea at the price of approximately (SAR 247 Millions) for delivery during 2013.

Source: NSCSA

Keppel delivers fourth EXL jack-up rig to Rowan

Keppel AMFELS LLC, a wholly owned US subsidiary of Keppel Offshore & Marine Ltd (Keppel O&M), has completed the delivery of its fourth EXL jack-up rig to a subsidiary of Rowan Companies, Inc. with a perfect safety record, four months ahead of schedule and within budget. The jack-up rig was christened Rowan EXL-IV by Ms. Mary J. Dunaway and Ms. Audra M. Williamson, daughters of Mr. Johnnie Huckabay, one of Rowan's senior rig managers. The rig was delivered on September 1, 2011 and is scheduled to depart Keppel AmFELS' yard in Brownsville, Texas in October 2011.

Mr Matt Ralls, President and CEO of Rowan, said, "This latest EXL jack-up rig is a key addition to our fleet of high-specification rigs and will enable us to further grow our offshore drilling business. We are seeing improved demand for our rigs, especially for high-spec jack-ups, which are playing an increasingly important role in the offshore drilling market. Keppel AMFELS has once again delivered another quality rig to us on time and within budget."
Mr Michael Dowdy, Vice President, Engineering, of Rowan added, "Delivering the Rowan EXL-IV in record time is a testament to the efficiency and diligence of the team in Keppel AmFELS. The people on this project have performed so well that you are delivering EXL-IV four months ahead of schedule and with zero lost-time incidents during the entire program – that's quite an accomplishment." Besides the four EXL rigs completed by Keppel AmFELS, Keppel FELS in Singapore has delivered three North Sea compliant N-Class jack-up rigs to Rowan. The latest of these, the Rowan Norway, was delivered in July 2011.

Mr G.S. Tan, President of Keppel AmFELS, said, "We are pleased to be able to deliver on our promises to Rowan. Rowan's confidence in our products and execution capabilities has led them to entrust almost US$2 billion worth of projects to Keppel to date. This latest delivery is another example of the excellent teamwork we have built with Rowan and a demonstration of Keppel's strong engineering, construction and project management expertise.
"We believe in being near market, near customer, and Keppel AmFELS' strategic location in the Gulf of Mexico has enabled us to delveop a close relationship with Rowan and one of its primary operating markets, to better serve its customers."

The ABS-classed EXL jack-up design is an enhancement of the LeTourneau Super 116E model. With a leg length of 477 ft and hook load capacity of up to 2,000,000 lbs, the Rowan EXL-IV employs state-of-the-art technology to drill high-pressure, high-temperature and extended-reach wells worldwide. The rig is capable of operating in water depths of 350 ft or more, and drilling to a depth of 40,000 ft.

Keppel AMFELS' current projects include the construction of a LeTourneau Super 116E jack-up rig for Perforadora Central, which is scheduled for delivery in 1Q 2013.

Source: Keppel Corporation

STUDENT BUZZ

- Basket Ball Court was inaugurated by our Director Prof S.C.Misra on 30th august at 1700 hours.

- IMU students celebrated the ***Introductory Gathering*** for the 1st year B.Tech and M.Tech and Lateral Entry students on 30th August in Basket Ball Court after the inauguration.

- Professor G.Tol from ***Delft University***, Netherlands visited IMU Visakhapatnam with 5 students to conduct a short term course on ***Offshore structures and engineering***.

- Mr. N.K.Misra CMD, Hindustan Shipyard Ltd. gave a seminar on ***Specification Writing in Ship Building*** on 5th September at 1600 hours
- ***Teacher's Day*** was celebrated on 5th September at 1700 hours in seminar hall of IMU, Visakhapatnam campus

- ***Onam***, a festival of Kerala has been celebrated in IMU Visakhapatnam on 9th September and a tug of war competition was conducted on the eve at around 1700 hours. The B.Tech 3rd year students won the competition.

TUG OF WAR....

- Two girl students from IIT Madras has been invited to attend the short term course.
- A 2 day workshop on " Human Rights Education Project (Human rights learning process) was held on 17th & 18th of September at IMU Visakhapatnam campus. This workshop was organized by B.V Foundation for Peace & Harmony and International Association for Religious Freedom (IARF). Nearly 40 students participated in the workshop. The participants were awarded with certificates.

PUBLICATION HOUSE

NAVAL ARCHITECTURE STUDENTS SOCIETY

Indian Maritime University, Visakhapatnam Campus.

Editor in chief: Mr. Bikram Senapati

Editors: Soumya Subudhi , Shreya Dutta, Pramit Kr. Sarkar, Arjun Mandal & Ariit Sengupta

Advisor: Mrs. Padmashree

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laola777@gmail.com

www.nsdrc.res.in/imu