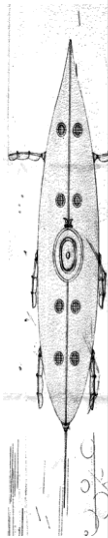


VAN DREBBEL :

What might be called the first "practical" submarine was a rowboat covered with greased leather. It was the idea of Cornelius Van Drebbel, a Dutch doctor living in England, in 1620. Van Drebbel's submarine was powered by rowers pulling on oars that protruded through flexible leather seals in the hull. Snorkel air tubes were held above the surface by floats, thus permitting a submergence time of several hours. Van Drebbel's submarine successfully maneuvered at depths of 12 to 15 feet below the surface of the Thames River.



Van Drebbel followed his first boat with two others. The later models were larger but they relied upon the same principles. Legend has it that after repeated tests, King James I of England rode in one of his later models to demonstrate its safety. Despite its successful demonstrations, Van Drebbel's invention failed to arouse the interest of the British Navy. It was an age when the possibility of submarine warfare was still far in the future.

DYNAMOS... THE FEW .THE PROUD**A NEWSLETTER OF MECHANICAL ENGINEERING DEPARTMENT****VOL-2 ISSUE-1 JANUARY-2017****EDITOR'S VOICE:**

The study used synchrotron radiation micro computed tomography μ CT technique to observe internal fatigue crack growth which is small to be detected by using X-ray CT. The synchrotron radiation facility is located in Hyogo, Japan. With this facility, high brightness synchrotron radiation of one million time can be achieved. Super Photon ring-8GeV (SPring-8) is one of the world largest third-generation synchrotron radiation facilities. The research team explained that fatigue test was carried out using a high response and transportable axial hydraulic servo fatigue testing machine that was developed in the laboratory. The imaging system consists of light source, optical system, a detector, and a specimen. In Ti-6Al-4V, the size of the initial crack would be a few tens of micrometers. Nakamura and his co-researcher assumed fatigue cracks close under unloading conditions. It seems to be difficult to detect such a closed small crack, so a tensile loading grip was developed to open the crack during μ CT imaging. To find an internal small crack, the projected image perpendicular to the loading axis was carefully examined in the parallel part of the pre-fatigued specimen. As a result, a circular dark region was observed in the images of the first μ CT imaging.



Non-destructive observation of internal fatigue crack growth in Ti-6Al-4V by using synchrotron radiation μ CT imaging

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N. V. Sai Ram
 N. Venkata Sai Ram
 Assistant Professor

STUDENT ACTIVITIES:

The department of mechanical engineering had a reason to celebrate after the declaration of JNTUK university revaluation exam results. Heartly congratulations to all the toppers of III & II years whose performance is top notch. The effort and dedication of these students bagged ample of praise and applaud not only for the department of mechanical engineering but also to the entire institution. Let this considered as a source of inspiration to the entire students of the department who made things next to impossible come true. A big thumbs up to all the faculty members who guided the students in the righteous path for such a “TITANIC” success.

III YEAR TOPPERS:

S.NO	ROLL.NO	NAME	%
1	13JR1A0319	DESU SAIRAM	76.13
2	13JR1A0324	GADIPARTHI SRIKANTH	75.61
3	13JR1A0305	YALAMANHALI HARANI	74.84
4	13JR1A0304	SHAIK NAGINA SULTANA	73.81
5	13JR1A0318	DASARI PRASSANA KUMAR	71.23

II YEAR TOPPERS:

S.NO	ROLL.NO	NAME	%
1	14JR1A0368	PATIBANDLA KALYAN RAM	85.10
2	14JR1A0367	PATHAN ASLAM KHAN	84.28
3	15JR5A0310	KOULURI KHALEED	83.45
4	14JR1A0375	PUVVADA RAMANJANEYULU	81.10
5	14JR1A03A3	YECHURI SAI AKHIL KUMAR	80.83

DEPARTMENTAL ACTIVITIES:

- With a mean of adding the flavor of advancement to theoretical methods department took a initiative step by purchasing CNC Trainer Lathe: MTAB Make: XLTURN with tooling package and work bench, Worth: 6,50,000/-.
- Followed by that conducted a three day training programme on XLTURN CNC machine operation & functioning for the following faculty (Mr..N.V.SAIRAM, Mr.S.RAJU, Mr.J.KOTESWARA RAO & Mr.A.SRINU lab technician), Dated on :18/10/16-20/10/16.



- Organized a workshop on Autodesk Fusion 360 involving fourth year students held on 20/10/2016.
- Inculcating the design standards & elaborating prior role of designing in the trending market, being the main motive behind this workshop.



- Mr. V.Srikumar, Mr. N.V. SaiRam, Mr. K. Giri Babu & Mr. M. Sai Chandrasekhar had attended a One week Faculty Development Programme on “Finite Element Analysis by Using ANSYS Software” at KHIT, Guntur from 24/10/16 to 29/10/16.