NEW HORIZON COLLEGE
B.B.M, B.C.A, B.Com
Campus I
Ring Road, Near Marathalli, Bangalore
Campus II
Kasturinagar, East of NGEF, Bangalore

NEW HORIZON BYTES

NEW HORIZON COLLEGE OF ENGINEERING
BE in
Electronics & Communication Engg
Electrical & Electronics Engg
Information Science & Engg
Computer Science & Engg
Mechanical Engg
Automobile Engg
Biotechnology
Civil Engg
MBA
MCA
M.TECH
Ph.D
M.Sc (Engg)

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Industrial Visit to C-DAC

Thanks to New Horizon College of Engineering and the department of MCA, we the students of 3rd semester MCA, A and B sections were given the opportunity to go on an industrial visit to "Centre for Development of Advanced Computing". The visitto the CDAC facilitywas organized on the 7th of November 2017. CDAC is a central governmental initiative that is involved in advanced computing projects mainly involving IoT(Internet of Things) and IEFT, with more emphasis on the latter.CDAC also prides itself for being the first to build India's first super computer named "PARAM". On our arrival at 3:30 P.M. we were guided to a seminar hall where Ms. Ranjana would present to us on the topic "IETF" or "Internet Engineering Task Force".

Launch of e-Rapid Share

Rapid Share is a monthly News Letter from Department Master of Computer Applications to throw an insight over the happenings of the department with respect to Both Curricular and Co-Curricular Activities. This sets a mean to get updated with the latest tech trends striving towards progress of department. Rapid Share made way for an amazing set of launches with some comprehensive innovations made by department of master of computer applications with respect to getting evolved into digital media from conventional paper content, with this it marks a respect to New Horizon's Attribute towards Digital India initiative. Department of Master of Computer Applications witnessed a number of digital trends incorporated in order to develop digital ecosystem striving towards techno Equipped Minds, with this intent the Department for the first time unveiled a website for its monthly News Letter titled 'e-Rapid Share'-A Knowledge Granary

- This was the first time in the history, where a dedicated website was developed to depict the monthly events of the department.
- The department also launched its Mobile Application to ease the accessibility of the Activities took over the department on a monthly basis.
- e-Rapid Share Can Now be Accessed globally across all the devices covering Mobile, tablet and other e-Gadgets.

Launched Entities:

1. e-RapidShare:An Official Department News Letter Available Across Web.
2. e-RapidShare Web Cast: Enables to Access e-Rapid Share through Mobile Casting.
3. e-RapidShare Website: Dedicated Website Capturing all the Activities Monthly.
4. e-RapidShare Mobile App(Android): Android App to Enable Touch Point Access.
5. e-RapidShare Tablet Touch: Customized Website forTablet View.

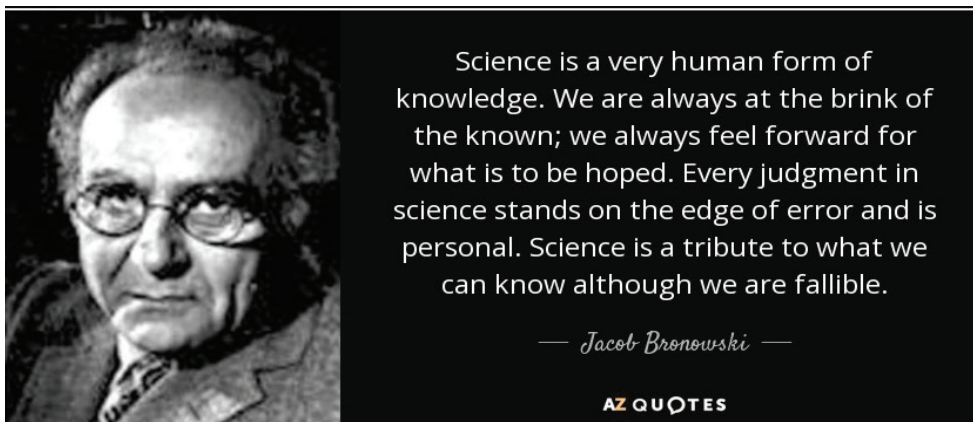
Salutation Ceremony

On the 9th anniversary of the 26/11 attacks in Mumbai, that shocked the entire nation, the students and staff of New Horizon College of Engineering and New Horizon College on the 27th of November 2018 paid homage to the brave hearts who lost their lives protecting us.

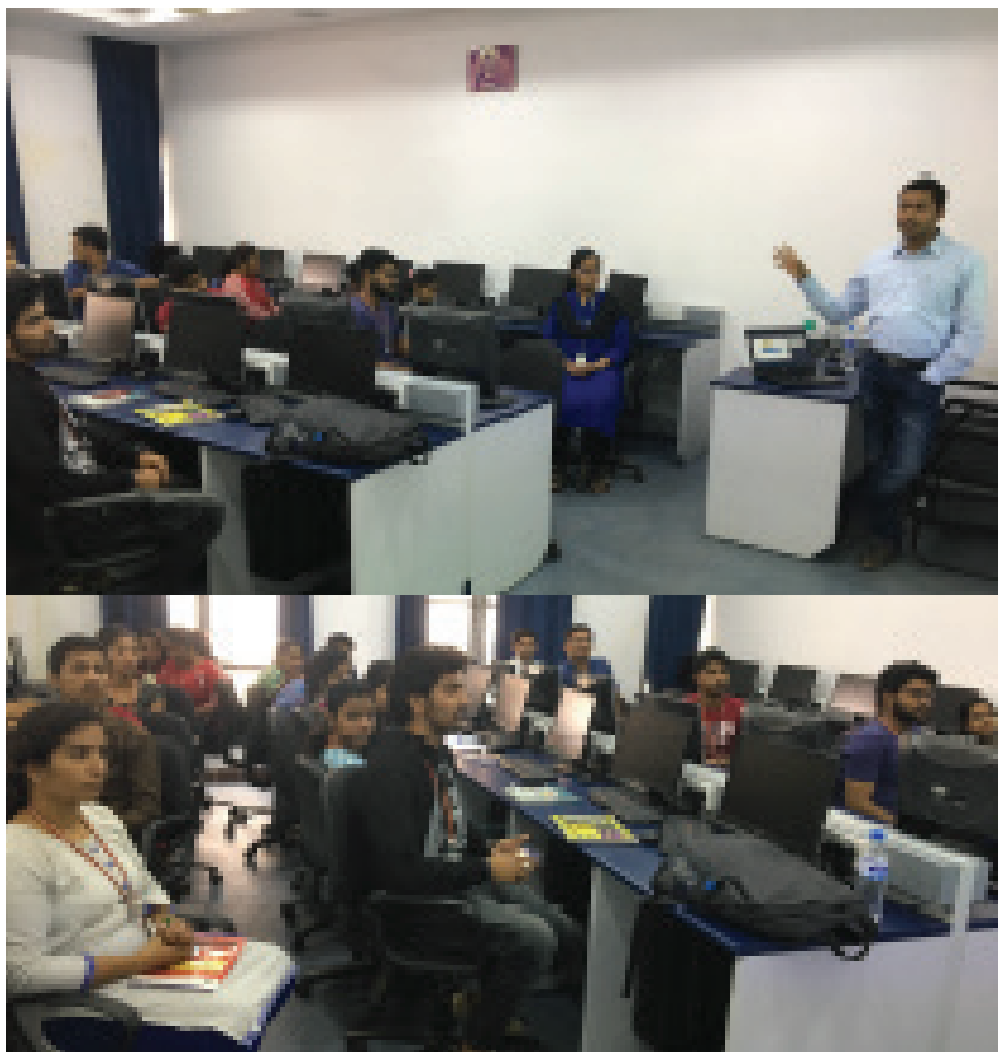
Mr. Christo Geo Jose a 2nd year student from the Civil Engineering department spoke about the attacks on 26/11 and how it will forever remain etched in his memory. The Principal, Heads of all the departments, and students light a candle in solidarity with those who lost their lives on that fateful day. This was followed by a minute of silence as a mark of respect.

Mr. Amritnath Vijaykumar, 4th year student from Electronic and Communication Engineering remembered the brave harts Sri. Vijay Salaskar, Major Sandeep Unnikrishnan, Sri. Hemant Karkare and Sri. Tukaram Omble among others and recalled the events that unfolded at various locations across Mumbai, and how it united our country for one common cause, and the importance of freedom and peace that currently prevails in our country. Mr. Christo Jose thanked Chairman Sir, Heads of the all the departments, and staff members for the imbibing sense of gratitude for those who sacrificed their lives for our nation among the student community. The event ended with the entire gathering humming the patriotic song Vande mataram.

"Quote Hanger"



Expert Lecture on Big Data HADOOP



There was an Expert lecture on Data Big Data HADOOPconducted by the Department of Master of Computer Applications on 11November 2017. The venue provided for the session was the MCA lab3, where in the session began at 2:00 PM with a brief introduction given about the guest speaker.

Profile of the Guest:

Mr. Veerbhadra,and Mr.Bibin John are currently employed as Data Scientists and Data Analysts at National Instruments as a part of the Research and Development division. Both have 11 years of experience in the software industry in regards to all the phases of the software development life cycle for Data Quality and Data Governance.

Objectives:

- To provide the students with an insight into the various concepts of HADOOP tool with real time scenarios
- To provide an o pportunity to the students to learn about the concepts from an industry expert.

Content:

The session was handed over to Mr. Veerbhadra,who then proceeded with a small step into the world of Big Data and HADOOP. Starting withwhat is big data, he then continued on the topic of and proceeded to explain how thefive V's have a great impact on data, with a brief insight into the statistics of how big data is beneficial.

The session then continued with an introduction to Hadoop, with an insight into the different uses and different companies that use Hadoop. He then touched up on the Hadoop eco system, Hadoop common, HDFS, Hadoop YARN and Hadoop MapReduce. He also briefly spoke about the various other tools available in Hadoop while briefly touching up on each one like HIVE, Pig , Cascading, HBase and Flume.

Mr Bibin then took over the sessionand began providing an insight into HBase and how it is a distributed column oriented data store, which is built on top of HDFS, briefly touching up on the various differences between HBase and HDFS. He then continued to provide further insight on the different operations on HBase before moving on to what Sqoop is and how it is being used in the industry today. He proceeded to provide a brief introduction to the differences between HIVE and SQL along with the various operations that can be performed.

Lastly the session ended with a in-depth conversation on the features and the working of Pig with an example. The session then concluded with a Q and A session.

Outcome:

The students were given an insight into the industry perspective and career opportunities available in the field of Big data and Hadoop.

The students had their queries resolved regarding the various concepts that were covered during the session.

Extra Curricular Clubs Investiture Ceremony@NHCE

17th November 2017 was marked as the day when the 13 Extracurricular clubs of New Horizon College of Engineering held their 2nd inauguration day to swear-in the new Presidents along with the new board members for the academic year 2017-18.

The Momentous occasion was graced with the presence of Principal Dr. Manjunatha, Deans, and H.O.D`s. The event got off to a great start with a melodious invocation by the NHCE Choir team from the Music club. Following which the lighting of lamp was done by the Ex- Presidents, Principal, Dean-Students Affairs and Dr. Anitha S Rai. Following which Dr. Anitha S Rai Extra-curricular club in charge presented a report on the various club activities conducted in the year 2016-17(Event sem) and 2017-18 (Odd sem) wherein a total of 45 Events has been organized and 2 Mini-fests (Experience & Revelations) were conducted. Principal Dr. Manjunatha addressed the gathering and encouraged all the clubs in their activities. Dean, Student affairs Dr. M.S. Ganesh Prasad administered the oath taken by all the club presidents promising to fulfill their duties as club presidents and conduct activities that would benefit the overall growth of the students.

This was followed by the main ceremony of handing over of flags by the ex-presidents and handover of badges to the new Presidents. All the respective Club presidents showcased the achievements of the various clubs in the previous year and gave a brief glimpse of what events they would do in the future. The committee members were then called upon to the stage for receiving their badges. All the Ex-Presidents and board members were given a memento and a certificate by the Principal. All the 13 presidents were then called upon to the stage for a group photo session followed by a photo session for all the committee members.

The vote of thanks given by Lit Club President Shubhang Misra on behalf of extra-curricular clubs who thanked everyone for their support in making this event a success.

The ceremony ended with the national anthem, and a promise in the hearts of all the presidents to work together and make every event a successful one and leave a mark before they leave the college.

Machine Learning is revolutionizing IoT

Few things have propelled the IoT's dizzying growth in recent years as much as machine learning and the innovators who are pushing it. Independent, intelligent machines that can comb through data to make their own decisions are, to some, the only reason such phenomenon as the IoT can exist in the first place. So what are the top three ways in which machine learning has and will shape the IoT? Whether it's inspiring human creativity, surpassing human efficiency, or paving the way for even newer technologies to themselves break through and reshape the IoT, machine learning is the fuel that's driving the IoT forward into the 21 st century. Here's how:

1. Making data useful The gargantuan mountains of data generated by the IoT is perhaps it's defining characteristic. Nonetheless, all of the data in the world is completely useless if companies and individuals can't make sense or use of it. So how exactly has the market exploited this valuable data? Through machine learning. Today's machine learning algorithms comb through data sets that no human could feasibly get through in a year or even a lifetime's worth of work. As the IoT continues to grow, with some estimating it could reach the dizzying heights of $1.6 b in value by 2021, more algorithms will be needed to keep up with the rising sums of data that accompany said growth. Machine learning doesn't just sort through preexisting data to the benefits of companies, either. As ABI Research points out, recent advancements in machine learning have enabled it to do predictive analysis, meaning companies which employ these algorithms can better predict future market trends and more successfully target future customers. Companies who want to succeed in today's marketplace understand the valuable potential hidden in machine learning, and are starting to justifiably treat their algorithms as valued parts of their workforce. But is machine learning only useful for those trying to make it in the commercial marketplace?

2. Making the IoT more secure

Machine learning isn't just used by companies or innovators hoping to make a quick

buck off trading and using data. It's also used for security purposes; already, machine learning algorithms are scouring the Darknet for cyberthreats. IT officials can't patch their software or hardware which makes the IoT run if they're unaware of the challenges facing them, and often only a machine learning algorithm is efficient enough to find and bring to light those challenges.

B. Nithya
Asst. Prof. - MCA

Expert Lecture on High-Performance Modeling and Simulation for Big Data Applications

There was a Expert lecture on High-performance modeling and simulation for big data applications conducted by the Department of Master of Computer Applications on 7th October 2017, the venue provided for the session was MCA lab. The session began at 10:00 AM.

Profile of the Guest:

Mr. S. Balachander, currently working as a competency lead and advisory consultant, offering over 16+ years of experience as a Big Data SME in a high-impact engagement to optimize global-level sales strategy for the client.

Objectives:

The main objective of the session was to provide the students with an insight into the various models of Simulation for Big data applications.

To also provide the students with information on the different roles of high-performance simulation and modelling.

Content:

Mr. Hariharan began the session with a Q&A about the basic concepts of simulation modelling, while later shedding light on the importance of simulation modelling and its usages in various applications. He briefed about modelling and simulation which is considered very essential for the analysis of complex systems and natural phenomena in science and engineering. They often require a significant amount of computational resources with large data sets, typically scattered across different geographical locations with dissimilar computational infrastructures. Moreover, recent approaches in high performance computing for Big Data applications show a continuous demand for the intelligent combination of complex computing systems with novel data mining methods to handle the increasing amount of data.

He then moved on to demonstrate the data-intensive modelling and simulation which can be constructed as an interdisciplinary area which requires the efficient exploitation of distributed and high-performance computing resources via novel parallel programming, task scheduling, and data handling to leverage large applicative environments. The existence of Big data applications and its usages in data modelling were also discussed.

The session then concluded with a note stating that the collaborative efforts from researchers and practitioners with different domain knowledge and expertise would be helpful for the development of such complex modelling and simulation. He also encouraged and motivated the students to do research in different domains of modelling by finding out the specific expert area. He was pausing in between the topics and encouraging students to come up with their own innovative ideas and the session was very much interactive.

Outcome:

The students were able to learn various models used for big data applications.

The various models which is used in different domains.

The importance of practicing or doing research in simulation modelling.

Quantitative Aptitude #23

1. Find the odd man out. 1, 16, 81, 255, 625, 1296
A. 255 B. 1296
C. 81 D. 1

Answer : Option A
Explanation :
The patter is 14, 24, 34, 44, 54, 64

Hence, in place of 255, the right digit is 44 = 256

2. Find the odd man out. 6, 13, 18, 25, 30, 37, 40
A. 40 B. 30
C. 37 D. 25
Answer : Option A
Explanation :
The difference between two successive terms from the beginning are 7, 5, 7, 5, 7, 5

Hence, in place of 40, right number is 37+5=42

3. Find the odd man out. 445, 221, 109, 46, 25, 11, 4
A. 25 B. 109
C. 46 D. 221
Answer : Option C
Explanation :
To obtain next number, subtract 3 from the previous number and divide the result by 2

445

(445-3)/2 = 221

(221-3)/2 = 109

(109-3)/2 = 53

(53-3)/2 = 25

(25-3)/2 = 11

(11-3)/2 = 4

Clearly, 53 should have come in place of 46

4. Find the odd man out. 1050, 510, 242, 106, 46, 16, 3
A. 46 B. 106
C. 510 D. 1050
Answer : Option B
Explanation :
1050

(1050 - 30)/2 = 510

(510 - 26)/2 = 242

(242 - 22)/2 = 110

(110 - 18)/2 = 46

(46- 14)/2 = 16

(16- 10)/2 = 3

Hence, 110 should have come in place of 106

Dr.R.Chinnaiyan, Professor /MCA-NHCE

IoT Security Technologies

1. IoT network security: Protecting and securing the network connecting IoT devices to back-end systems on the internet. IoT network security is a bit more challenging than traditional network security because there is a wider range of communication protocols, standards, and device capabilities, all of which pose significant issues and increased complexity. Key capabilities include traditional endpoint security features such as antivirus and antimalware as well as other features such as firewalls and intrusion prevention and detection systems. Sample vendors: Bayshore Networks, Cisco, Darktrace, and Senrio.
2. IoT authentication: Providing the ability for users to authenticate an IoT device, including managing multiple users of a single device (such as a connected car), ranging from simple static password/pins to more robust authentication mechanisms such as two-factor authentication, digital certificates and biometrics. Unlike most enterprise networks where the authentication processes involve a human being entering a credential, many IoT authentication scenarios (such as embedded sensors) are machine-to-machine based without any human intervention. Sample vendors: Baimos Technologies, Covisint, Device Authority, Entrust Datacard, and Gemalto.
3. IoT encryption: Encrypting data at rest and in transit between IoT edge devices and back-end systems using standard cryptographic algorithms, helping maintain data integrity and preventing data sniffing by hackers. The wide range of IoT devices and hardware profiles limits the ability to have standard encryption processes and protocols. Moreover, all IoT encryption must be accompanied by equivalent full encryption key lifecycle management processes, since poor key management will reduce overall security. Sample vendors: Cisco, Entrust Datacard, Gemalto, HPE, Lynx Software Technologies, and Symantec.
4. IoT PKI: Providing complete X.509 digital certificate and cryptographic key and life-cycle capabilities, including public/private key generation, distribution, management, and revocation. The hardware specs for some IoT devices may limit or prevent their ability to utilize PKI. Digital certificates can be securely loaded onto IoT devices at the time of manufacture and then activated/enabled by third-party PKI software suites; the certificates could also be installed post-manufacture. Sample vendors: DigiCert, Entrust Datacard, Gemalto, HPE, Symantec, and WISeKey.

Kavitha S.N
Asst. Prof. - MCA

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Dear Parents,
Hari Om!

ADMISSION NOTICE FOR PLAY GROUP, NURSERY, LKG AND UKG FOR THE SESSION 2018-19

Registration forms for admission for the academic year 2018-19 to **Play group**, **Nursery, LKG and UKG** can be downloaded from the website: **www.newhorizonvidyamandir.in from 30th September 2017 onwards.**

Registration forms can also be obtained from New Horizon Vidya Mandir or New Horizon Gurukul from 5th October 2017 onwards **(Timings: 9.00am to 4.00pm).**

Filled in registration forms to be submitted **only** at New Horizon Vidya Mandir. Parents can see the campus after the submission of registration forms on **5th, 6th and 7th October 2017.**
(Timings 9am to 12pm/1.30pm to 4pm)

Cost of prospectus and registration fee: Rs. 500 /- (mandatory for all applicants)

Submit the filled in registration form with the following:

1. The latest passport size photograph of the child
2. Photocopy of the birth certificate
3. Aadhar copy of the child

Note: For those in the sibling category, please submit the filled in form on 5th October 2017 only. In case you do not apply on time, the preference in admission will not be given and your child's admission will be considered in general category.

For Play group: The child should complete 1 year 11months as on 1st June 2018.
For Nursery: The child should complete 2 years 8 months as on 1st June 2018 and for other classes the corresponding age is taken into account for admission.

PRINCIPAL
(Usha Vasudevan)

Industrial Visit to Kirloskar Toyota

Thanks to New Horizon College of Engineering and the department of MCA, we the students of 1rd semester MCA, B section were given the opportunity to go on an industrial visit to "Kirloskar Toyota"on 10-11-2017.

Objectives:
1. To understand how software tools are useful in execution of Automobile Manufacturing process
2. To understand how software system helpful in resource allocation process to improve work productivity
3. To Understand how software helpful for solving business related issues
4. To understand how the various software tools are helpful to improve QRS

Outcomes:
Students observed following points during the visit:
1.Understood how software useful in manufacturing sector
2.Understood how software helpful in solving business related problems
3.Understood how to improve QRS with the help of software

Summary:
The visit to Toyota Kirloskar organized on the 10th of November 2017. Toyota Kirloskar is Car Manufacture Company .our students had fruitful discussion with Toyota Manager. Though it's not IT related Company, Students learnt what would be the positive impact on discipline and commitment. One more key observation is, company producing a car in 3 seconds because of their highly commitment and discipline. Students understood highly commitment and discipline is required to achieve the target in efficient manner. Students understood working logic of gears and some parts of vehicle. Understood how the resources can allocation and customer feedback, customer requirements can collect using various software tools.

Behind the Scene

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