Cyber security in Education: What Teachers Should Know

While online learning provides so many positive opportunities for learners and teachers alike, it is more important than ever to strengthen cyber security defences to deal with new and emerging attacks. This article is designed to help provide teachers, parents and students with the information they need to identify common cyber threats, as well as tips on cyber security best practices to help you safely ease into the new school year.

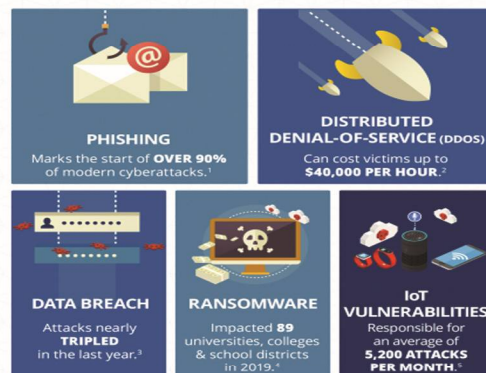**Cyber security in the Classroom: What Teachers Should Know?**

Cyber security should not be limited to the classroom — virtual or otherwise. Since most home networks do not provide the same increased firewalls or protections offered by institutions, teachers and students become more susceptible to hacking attempts as they spend more time online. It is important to practice safe online behaviour everywhere.

Cyber Threats for Teachers

As a teacher, staying informed and learning the best practices to protect yourself and your students is always the best first step to take in cyber security. Below are the top five cyber security threats faced by teachers, as outlined in a report by the Consortium for School Networking (CoSN).

Cybersecurity threats and tips FOR TEACHERS

Five cybersecurity threats faced by teachers:

- **PHISHING** — Marks the start of OVER 90% of modern cyberattacks.[1]
- **DISTRIBUTED DENIAL-OF-SERVICE (DDOS)** — Can cost victims up to $40,000 PER HOUR.[2]
- **DATA BREACH** — Attacks nearly TRIPLED in the last year.[3]
- **RANSOMWARE** — Impacted 89 universities, colleges & school districts in 2019.[4]
- **IoT VULNERABILITIES** — Responsible for an average of 5,200 ATTACKS PER MONTH.[5]

Five cybersecurity tips for teachers:

1 **Encrypt** your data
2 Comply with your institution's cyber **protocols**
3 **Safeguard** your devices from physical attacks
4 **Back up** your data
5 Practice good **password** management

1. Phishing: These attacks leverage social engineering by exploiting human emotion to trick victims into giving up sensitive information such as passwords or credit card details. Over 90% of cyber-attacks today start with phishing, according to CoSN.

2. Distributed Denial-of-Service (DDoS): These attacks occur when multiple systems flood the bandwidth or resources of the local servers. These attacks can cost victims up to $40,000 per hour, while typically only costing around $40 for cyber attackers to engineer.

3. Data Breach: A data breach is a security incident in which private or sensitive information (such as student data) is accessed without authorization. In fact, student and educator data breaches were one of the most common cyber incidents experienced in 2019.

4. Ransom ware: These threats involve hackers holding data hostage in exchange for money or other demands. According to a report from the cyber security firm Emisof, the potential cost of ransom ware in the United States reached over $7. 5 billion in 2019.

5. IoT Vulnerabilities: IoT (Internet of Things) devices such as laptops, smart home accessories and tablets often lack security or are not updated on a regular basis, making it vital for teachers to prioritize security when incorporating IoT devices into the classroom.

Department of
Computer Science & Engineering

A 6-Day STTP on "STATISTICS WITH R PROGRAMMING" SPONSORED BY AICTE, NEW DELHI FROM 24-6-2019 TO 29-06-2019

CSE Department organized a 6-Day Short Term Training Programme(STTP) on "Statistics with R Programming" sponsored by AICTE, New Delhi, during 24/6/2019 to 29/06/2019. Coordinator of this STTP is Dr. S.N. Tirumala Rao, Professor & Head, Dept. of CSE. Resource persons from various reputed Universities / Colleges delivered their Lectures for this workshop.

Resource Persons:

Dr. V. V. HaraGopal Prof. of Statistics, Dept. of Mathematics BITS Pilani, Hyderabad,

Dr. N. B. Venkateswarlu M.Tech (IIT Kanpur)., Ph.D (BITS, Pilani) Professor, G. V.P College of Engineering for Women.

Mr.T.Venkateswara Rao ,Former Adviser of APSSDC

Dr. S.Sagar Imambi ,Professor , KL University

Participants from various Engineering Colleges across pan India have participated in this STTP.

The Department of CSE organized a 5 - Day Faculty Develoment Programme (FDP) on "Introduction to Programming:A Pedagogical Approach" during 17th- 21st June, 2019, in association with MNIT, Jaipur. 30 Faculty members attended to this programme. The coordinator to this programme is Dr. S.V. N. Srinivasu, Professor, Dept. of CSE.

A ONE DAY WORKSHOP ON "PYTHON PROGRAMMING : IIT BOMBAY" on 22nd June, 2019

• CSE Department organized a One Day workshop on Python Programming in association with IIT Bombay under "Pandit Madan Mohan Malavia National Mission on Teachers and Teaching (PMMMNMTT)" on 22nd June 2019.

Student Contribution(s)

69 Students Completed "Front End Web Developer" Nano Degree Udacity Certification Course organised by APSSDC .

7 Students Completed "Android Web Developer" Nano Degree Udacity Certification Course organised by APSSDC. Overall 43 Students Completed the Course.

A 5-DAY SHORT TERM COURSE ON "RURAL DEVELOPMENT THROUGH TECHNICAL INSTITUTION" FROM 29/7/2019 TO 2/8/2019 IN ASSOCIATION WITH NITTTR-KOLKATA.

CSE Department organised a 5-Day Short Term Course on "RURAL DEVELOPMENT THROUGH TECHNICAL INSTITUTION" from 29-7-2019 to 2-8-2019 in association with NITTTR - Kolkata.

Department of CSE organised a One Day Workshop on "LINUX" conducted by IIT-Bombay under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. of India on 23rd August 2019 .

Department of
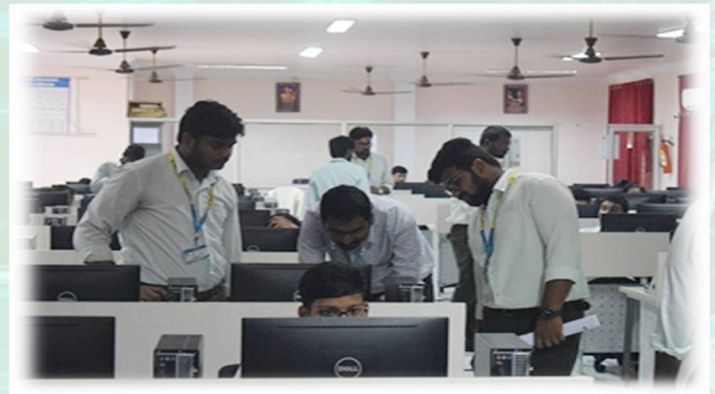# Computer Science & Engineering

STUDENT FOCUS: TECHNICAL

Series of events like technical quiz, Puzzles and Programs on C and DS are conducted by the students in the campus on 31-July-2019 organised by CSI.

A Six-Day Workshop on "Android App Development(PEER LEARNING)" was organised by III- Year students with 29 participants from 2-Dec-2019 to 7-Dec-2019.

Code Contest on C- Programming on 26-July-2019 and technical Quiz on 11-July-2019 are conducted for the students which is organised under CSI

FACULTY FOCUS:

1. Four Ph.D. Degrees are awarded to different Scholars on various thesis from Acharya Nagarjuna University & Rayalaseema University under the guidance of Dr.S.V.N.Srinivasu in the month July, September, October& November respectively.   .

2. Ph.D. Degree is awarded to Mr.Karnam Ramesh Rao on thesis entitled "Efficient and Cost Effective Measures to Preserve Communication Security and Privacy of Data in WSNs" JNTU Anantapur under the guidance of Dr.S.N.Thirumala Rao on 19-Dec-2019.

On the eve of Engineer's day (15/09/2019), CSI – NEC Student Branch has organized Paper Presentation Contest for CSI Students in the Area of Machine Leaning on 14/09/2019. Winners are awarded with Prizes and certificates by the Chief guest of our Engineer's Day event 1st Position N. Sathya Swaroop, II – CSE- A, 2nd Position T. Bhargavika, III – CSE -D, 3rd Position, G. Sai Akhil, III – CSE – A.

Department of Computer Science & Engineering

LIST OF RESEARCH PAPERS PUBLISHED IN NATIONAL /INTERNATIONAL JOURNALS IN 2019-2020

1. Dr.S.V.N.Srinivasu has presented a paper entitled "Integrated Clinician Decision Supporting System for Pneumonia and Lung Cancer Detection", in International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8, Issue-8 on July-2019.

2. Dr.S.V.N.Srinivasu has presented a paper entitled "Edge AI System for Pneumonia and Lung Cancer Detection", International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-9, July 2019.

3. Dr.S.V.N.Srinivasu has presented a paper entitled "Efficient CNN for Lung Cancer Detection", International Journal of Recent Technology and Engineering (IJRTE) in the month of Jul

4. A paper entitled "End to End System for Pneumonia and Lung Cancer Detection using Deep Learning", in International Journal of Engineering and Advanced Technology (IJEAT) ,ISSN: 2249 – 8958, Volume-8 Issue-6, August 2019 is Published by Dr.S.V.N.Srinivasu.

5. Dr. S.V.N Srinivasu, published a paper entitled "Query Computation Time and Its Performance over Distributed Database Frameworks", in International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-12, ISSN: 2278-3075, on October 2019.

6. Dr. S.V.N Srinivasu, published a paper entitled "Accept and Scale Traditional News Elements By Utilizing Public Network Elements", in International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-12,ISSN: 2278-3075 on October 2019.

7. A paper entitled, "Identifying System Location Specifics based on Classification of Worldwide Tweets", is published by Dr. S.V.N Srinivasu, in International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-12, ISSN: 2278-3075, in the month of October 2019.

8. G.L.N.Jayaprada, published a paper entitled "Multiple Sequence Alignment by Differential Evolutionary Algorithm with New Mutant",in an International Journal of Recent Technology and Engineering (IJRTE), Volume-8,Issue-4 , ISSN:2277-3878 on November-2019.

9. A paper entitled "The Robust Computer Aided Diagnostic System for Lung Nodule Diagnosis", published in an International Journal of Recent Technology and Engineering (IJRTE), Volume-8,Issue-4 , ISSN:2277-3878 by Dr. S.V.N. Srinivasu in the month of November-2019.

10. O. Aruna, Presented a paper entitled "An Adaptive and Opportunistic Based Routing Protocol in flying Adhoc Networks", International Conference on Computer Networks,BigData and IOT,Madurai, on Dec '2019.

11. A paper entitled, "Pairwise Sequence Alignment by Differential Evolutionary Algorithm with New Mutation Strategy", published in International Journal of Engineering and Advanced Technology(IJEAT), Volume-9,Issue-2, ISSN: 2249-8958 by G.L.N.Jayaprada, in the month of December-2019.

R -19 I BOS M.Tech I & II year Course Structure & Syllabus on 25-07-2019
• I BOS - B.Tech Four years Course Structure & I & II year Syllabus

I BOS: 25/7/2019 - 1st year B. Tech. (1st & 2nd Semester)
External Members Attended:

1. Dr. O. Srinivasa Rao, Professor, Dept. CSE, JNTUK, JNTUK Nominee
2. Dr. R.B.V.Subramanyam, Professor, Dept. of CSE, NIT,Warangal, Subject Expert
3. Dr.V.Valli Kumari, Professor, Dept of CS & SE, Andhra University, Visakhapatnam, Subject Expert
4. Dr. Ch.Rupa, Professor, VR Sidhrdha Engineering College, Vijayawada, Alumni Representative.
5. V Santhosh Kumar Tangudu, Software Development Engineer – III, Flipkart Internet Private Ltd. Banglore, Industry Representative.

ACADEMIC TOPPERS

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
II B.Tech. II Semester, CSE Toppers List (2018 Batch)

K.SRIVALLI	G.L.L.PRASANNA	P.GAYATHRI	M.S.S.DEEPIKA	P. ASRITHA
18471A05E7	18471A05E1	18471A05G3	18471A0590	18471A05L5
9.45	9.36	9.32	9.18	9.18

C.NAGA LAKSHMI	C.K.SUDHANJALI	V.S.N. JYOTHI	B.K.AKURATHI
18471A0564	18471A0566	18471A05B7	18471A05C4
9.05	9.05	9.59	9.05

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in II B.Tech II Sem

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
III B.Tech. II Semester, CSE Toppers List (2017 Batch)

B.JAYASRI	M.N.S.L.P.AMULYA	M.RAGA NAVYA	K.SAI SREE	Y.AAKANKSHA
17471A0581	17471A0582	17471A0587	17471A0584	17471A0585
9.87	9.74	9.35	9.35	9.35

SK. ROSHINI	S.RAMYA	K.SRIKANTH	N.V.KOWLINI	N.LIKITHA	G.DIVYA
17471A0590	17471A0598	17471A05A5	17471A05E2	17471A05F5	17471A0573
9.35	9.35	9.35	9.35	9.35	9.22

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in III B.Tech II Sem

Department of
Computer Science & Engineering

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
IV B.Tech. II Semester, CSE Toppers List (2016 Batch)

| SK.SALMA 16471A05C8 10.0 | V.Venkateswarlu 16471A05K1 10.0 | D.GAYATHRI 16471A0581 9.84 | K.MRUDHULA 16471A0588 9.84 | M.CHANDRANI 16471A05B9 9.84 |
| P.Mani Mounika 16471A05C4 9.84 | B.KALPANA 16471A05D9 9.84 | Y.SRIHARITHA 16471A05E4 9.84 | P.BHAVANI 16471A05F0 9.84 | P.SUDHA RANI 16471A05F3 9.84 |

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in IV B.Tech II Sem

STUDENTS ACHIEVEMENTS

SNO	CERTIFICATION NAME	NO OF STUDENTS WHO DONE CERTIFICATIONS	CERTIFICATE MODEL
1	SOLOLEARN	197	
2	NPTEL	49	
3	APSSDC	54	
4	COURSERA	690	

Sri.Kunisetty Janardhan Guruji (Parikalpa Yogi), explaining the importance and benefits of Yogasanas to the students on the eve of International Day of Yoga on 21-06-2019 at NEC Campus premises.

Sri. Dr.Gopireddy Srinivasa Reddy Garu, Narasaraopeta MLA, active participation in Blood Donation Program on 08-07-2019 at Block-3, Main Seminar Hall.

Dr. K.V.S.G.Murali Krishna, former JNTUN Principal and Personality Development Trainer addressing the students in an awareness program on "Career Guidance" to the B.Tech and MBA students on 20-07-2019.
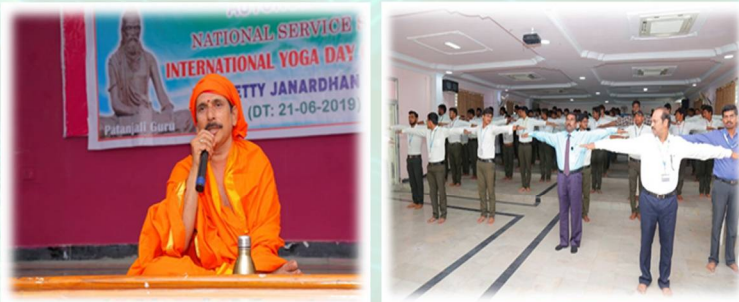

Our college NSS Unit organized a Debate Competition on the topic "Water Crisis in India" on 22-07-2019 as a part of Jal Shakthi Abhiyaan

On 30-07-2019 our college NSS Unit organized an Essay Writing Competition on the topic "Mahatma Gandhi's Life" on the eve of 150th Birth Anniversary Celebration of Mahatma Gandhi

Our college NSS Unit organized Vanam – Manam program on 20-08-2019 as per direction from District Collector Sri. Samuel Anand Kumar.

Department of
Computer Science & Engineering

Our college NSS Unit organized Vanam – Manam program on 20-08-2019 as per direction from District Collector Sri. Samuel Anand Kumar.

STUDENT VOICE

The past years in NEC passed by in swift immersing the students with knowledge, patience, and on top of all management abilities necessary to able to compete in the real world of. It gave me a platform to push myself and to understand the potentials that was hidden inside me. These past years not only helped me broaden my horizon on my knowledge on skills and Technology but also helped me discover more about myself.

B. VAMSI KRISHNA
Reg No: 15471A05J9

I would like heartily thank all the faculty and staffs in our institute who are still there and who were formerly working as well, for helping me adjust to every situation the whole time

It was a wonderful experience at NEC with an excellent exposure provided across the various platforms. The faculty are very supportive and encourage students to push boundaries to rise above expectations. NEC targets for an overall development of every student, be it education, cultural awareness or practical exposure of business world like industrial exposure. The placement activities are pretty good and come with a training given on how to conduct oneself and face interviews confidently. The ambience of the campus is very positive and the whole experience is very good and there is always support & motivation from the management to pursue our dreams

S. SIVA SUNAYANA
Reg No: 16475A0501