

#### EDITORIAL BOARD

#### From the Editorial Desk ......

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Yet another achievement from the Dept. of Computer Science, Sri Padmavati Mahila Visvavidyalayam... A proud moment to look upon. Yes. The release of our departmental magazine "KEEP EDUCATING" YOURSELF (KEY)" to mark the esteem of our students. We look up with joy and pride as this attempt of ours successfully steals the show.

We render our special thanks to Prof. V. Uma, Vice-Chancellor of Sri Padmavati Mahila Visvavidyalayam, our devout thanks to Dr. D.M. Mamatha, Registrar, our warm thanks to Prof. A. Jyothi, Dean, School of Sciences for having permitted our venture. Our heartfelt thanks to beloved Professors Prof. K. Sandhya Rani, Prof. S. Jyothi, Prof. M. Usha Rani, Prof. K. Usha Rani, Prof. P. Venkata Krishna, Dr. P. Bhargavi, Dr. N.V. Muthulakshmi, Academic Consultants, Technical & Non-teaching staff of the Department of Computer Science for being a constant source of motivation and encouragement.

We appreciate the active participation of our department students who contributed noteworthy articles with a great amount of great energy.

We store our appreciation for viewer's feedback and suggestions on this magazine. Last but not the least we thank Laser Systems Limited and the Almighty for making this release possible and for instigating us to produce many more in the future.

#### SRI PADMAVATI MAHILA VISVAVIDYALAYAM

Sri Padmavati Mahila Visvavidyalayam (University for Women)was founded in the year 1983 by Sri N.T. Rama Rao, then he is the Chief Minister of Andhra Pradesh, with the fervent desire to train women students as better builders of the Nation and to inculcate skills of leadership in all aspects of life. The University was established under the Sri Padmavati Mahila Visvavidyalayam Act of 1983, which has come into force on the 14 of April 1983. It was started with ten faculties and 300 students and twenty staff members. Today the University has a student population of 2700 and an academic staff 250. This year the University is going to have 59 courses at the post-graduate and undergraduate level and a good component of research.



The campus of *Sri Padmavati Mahila Visvavidyalayam* is spread out in a lush green area of 138.43 acres. The University is situated at a distance of 3 km from the railway and bus stations of Tirupati. The campus has the necessary buildings to run its academic programmes and administrative machinery. There are separate buildings for Humanities and Sciences, University's Administration, Central Library, University Auditorium, Sericulture Complex, and School of Pharmaceutical Sciences and also an independent building for Computer Science and Computer centre.

- ➤ Offered educational services, both general and professional, to women of all age groups, especially in Andhra Pradesh, to shape to their lives and careers.
- Facilitated and maintaining excellence in teaching.
- Advance knowledge through research and scholarly activity.
- Attract the most intellectually able staff and students.
- > Securing and managing the resources that serve the interest of women through networking and collaboration.
- Disseminate knowledge to benefit and serve Andhra Pradesh, Indian and International Community.

"Sri Padmavathi Women's University as the well cut diamond in hand just does not leave good things for people to behold and exclaim".

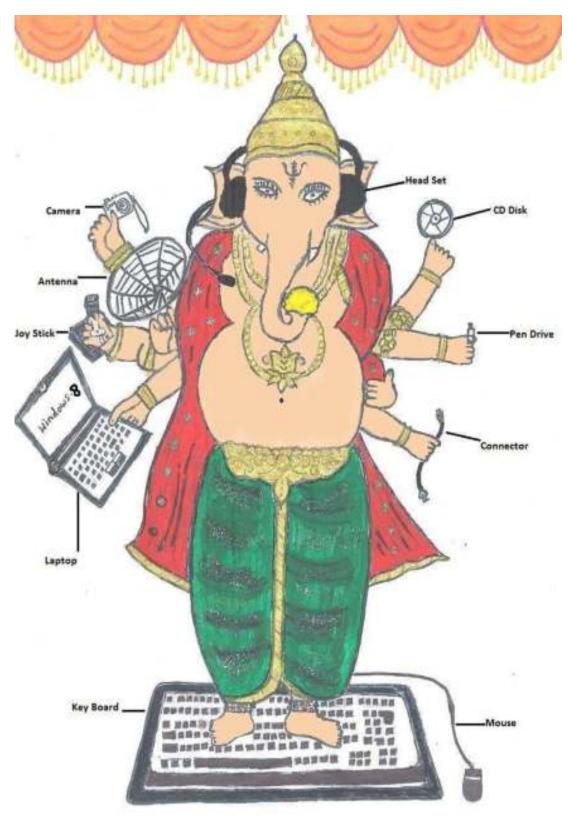
On the other hand it explains without tiring all the good thoughts there can be that lead good actions and laudable outcome. Each day the commitment and quantum of quality work at the University increases and achievements are becoming gradually incremental. Thirty years of steady rise and still seeking higher scales SPMVV is to live 'forever young' and forever for the young women!

#### DEPARTMENT OF COMPUTER SCIENCE: A PROFILE

The field of Computer Science has excellent employment potential in the present explosion of technological development. The Department of Computer Science was established in the year 1983 and offering 3 years Master of Computer Applications course since 1987. At present department offers MCA programme following Choice Based Credit System in semester pattern and research programmes: M.Phil. and Ph.D. The department has highly qualified and eminent senior faculty members. The department of Computer Science is with 90 high configured computers having anti-virus in e-class room and computer lab with internet facility and latest equipment & software.



Training at postgraduate level in Computer Science offers immense scope for opportunities in software development and information technology. **Employment** opportunities through campus interviews are provided to the students. The department is providing text books, MCA, M.Phil., Ph.D. dissertations through departmental library. Online journal accessing facility is provided by university library. Active research is being done in the department through M.Phil. and Ph.D. programmes. Number of scholars enrolled at present in the department is 26. Number of Ph.D.s awarded during last 5 years is 20. Currently 2 major research projects of worth more than 40 lakes are carrying by department. The department has conducted five National conferences, one International conference and the faculty have attended many workshops and presented more than 250 papers at National and International conferences and published number of articles in reputed journals. The department actively involved in research in the areas like Artificial Intelligence, Data Mining, Neural Networks, Fuzzy Systems, Genetic Algorithms, Computer Networks, Network Security, Parallel Processing, Image Processing, Pattern Recognition, Bio-Computing, Bio Informatics and GIS.



Art by Thulasi K. (MCA 3<sup>rd</sup> Year)

#### .....PRAYER OF A SOFTWARE PROFESSIONAL



#### Oh! God...

Help me log on without fretting Guide me as I'm interneting Bless my downloading and uploading Keep my browser from exploding May my website be protected Let not my password be rejected Keep my line always connected And may all my inputs be accepted Please keep all my programs alive And to remember to back up my hard drive And protect my computer from a crashing dive From a virus that would make it a nesting hive

Vijayalakshmi B. (MCA 3<sup>rd</sup>Year)

#### **Smart Mirror**

The Smart Mirrordescribes the design, construction and working of the smart mirror. Every morning our day begins by watching ourselves at least once in mirror before leaving our homes. We interact with it psychologically to find out how we look and how our attire is. Smart Mirror or Magic Mirror is one of the applications of Raspberry Pie. A computer screen embedded in mirror looks very futuristic. The Raspberry Pie stays at back scenes and controls the data displayed on mirror. While looking at mirror you can look at various notifications from social sites as well news, weather forecast and more things. Such mirrors can be programmed to work as AI and control home appliances by voice input or touch screen. The Raspberry Pie is connected to monitor via HDMI as well as it also has inbuilt Wi-Fi and Bluetooth interfaces so we can just swipe music and videos to mirror.

Smart mirrors are straight from science fiction. They're part of an optimistic vision of the future that imagines a world where screens and data are everywhere, ready to feed you whatever information you need at a moment's notice. Basically, the mirror is looks like normal mirror but when someone stand in front of it the scene changes. The mirror provides a functional, user friendly and interactive UI to its user for accessing their social sites, messengers, etc. It has widgets for displaying the current whether conditions, Time, Events, Latest news headlines The Smart Mirror would help in developing smart houses with embedded artificial intelligence, as well as finding its applications in industries. Switching home appliances becomes easy with mirror. Virtual dressing, a smart way of having trials with your fashion sense make things quite easy in malls. Having such intellectual mirror will only surge the beauty of home. The raspberry pi is programmed using python and connects to a monitor with inbuilt speaker so as to provide an onscreen interface and voice assistance as well.

#### 1 Two-Way glass mirror

The two-way mirror is what gives the mirror its real identity. It's really magic mirror as it has reflective surface at one side and also its transparent for light with good intensity. The mirror stays at the front where the user can watch himself/herself in the mirror at the same time the allows the light from monitor to pass through it and make available the UI [4] [5].

#### 2 Monitor

The monitor is directly connected to Raspberry Pi via HDMI interface thus providing display as well as voice output. For providing touch ability to monitor IR frames are used which are explained further in next sub-section.

#### 3 IR- Frames

While research on internet we didn't found any sign of how to give the mirror touch ability, so we found a way ourselves to do so. The IR-frames provides the touch interface to the smart mirror. The IR -Frames has IR sensors on its siding and connect to Pi via USB interface. Thus making smart mirror touchable.

#### 4 Raspberry Pi 3 Model B

The raspberry pi is the most vital part of the mirror, it forms the processing unit of the mirror. The Pi is like motherboard having all the required constituents which forms a great CPU. Its size of a credit card and still it can perform like a full-fledged computer. The programming of Pi is done using Python language. The programs can be first developed and compiled on windows or any other platform and then can run on Pi. The Pi also has its own inbuilt IDE to program in languages like C++, Python, C, Java, etc. Installation of OS on Raspberry Pi is quite a simple process. First you have to download NOOBS along with Raspbian which is great OS of Raspberry Pi for beginners. The Raspbian is just a flavor of Debian OS [7]. There are many IDEs available to do programming for Python but what we found was PyCharm Community is free and good among them who serves our requirements [8]. QtDesigner is amazing tool to make UI of Python [9]. Figure 3 shows a fully functional calculator wrote in Python script. The GPIO pins on Raspberry Pi controls the 8-Channel relay which is explained in next sub-section 3.4. The Raspberry Pi has inbuilt Wi-fi and Bluetooth for connectivity purpose as well as it allows 4 USB devices to be plugged in.

#### 5 -Channel Relay

The 8-Channel relay connects directly to high voltage input source of power and low power GPIO pins on Raspberry Pi. The GPIO pins cannot control the Home appliances directly as they have very less output power that is about 5V, So we require 8-Channel relay circuit board which close the circuit of home appliances when given a high of 5V [10].

#### 6 Camera

The Camera is input device for the mirror, its used for face recognition as well as body recognition. A concept called Virtual Dressing can be implemented using Image Processing. We roam in malls in search of various clothes, we cannot practically try all dressings that we like. So Virtual sorts this problem out, Images of this clothing's are saved in memory of mirror, whenever user stands in front of mirror and selects the dress, the mirror fits the dress on our body reflection in mirror. So, no need for doing trials every time. Face Recognition based authentication is another use of the camera, it customizes the profile of different users on same mirror.

#### 7 Microphone

The microphone is used to give voice input to the mirror. Along with touch capability a voice input makes the system very reliable and robust in working. A sensitive microphone takes voice command from the user and processes it to do corresponding action.

Compiled by

Meenakshi G.(MCA 3<sup>rd</sup> year)

#### ANDROID CODENAMES

Android is an *operating system* based on the *Linux kernel* and designed primarily for touch screen mobile devices such as smartphones and tablet computers. Android is open source and Google releases the code under the Apache License. Whether it's getting directions, sharing photos with friends, or even slicing virtual fruit, each Android release makes something new possible.

Here the below data about the relative number of devices accessing the Play Store recently and running a given version of the Android platform as of October 2, 2013.

#### **Cupcake** (**v1.5**) - Release on April 30, 2009:

**Key additions:** Right from the start, Android is an open OS that can run almost any app or widget so you can do what you want to do. Such as speech recognition tools, a virtual keyboard, video upload support for YouTube and support for live data feeds and live folders.

#### **Donut (v1.6)** - Release on September 15, 2009:

**Key additions:** The world's information is at your fingertips - search the web, get driving directions or watch cat videos. Support for CDMA smartphones, additional screen sizes and a text-to-speech engine.

#### **Eclair (v2.0)** - Release on October 26, 2009:

Key additions: Make your home screen just how you want it. Arrange apps and widgets across multiple screens and in folders. Stunning live wallpapers respond to your touch. Support for new browser interface, Microsoft Exchange support, single interface for managing multiple online accounts, soft keys support, and camera with digital zoom and flash support.

#### **FroYo** (v2.2) - Release on May 20, 2010:

**Key additions:** Voice Typing lets you input text, and Voice Actions let you control your phone, just by speaking. USB tethering support (for turning a smartphone into a Wi-Fi hotspot), significant speed improvements, Flash 10.1 support, the ability to store apps on external memory cards, updated browser with Google Chrome's V8 JavaScript.

#### **Gingerbread** (v2.3) - Release on December 6, 2010:

*Key additions:* New sensors make Android great for gaming - so you can touch, tap, tilt, and play away.

#### **Honeycomb** (v3.1, v3.2) - Release on May 10, 2011(v3.1), July 15, 2011(v3.2):

**Key additions:** Optimized for tablets, this release opens up new horizons wherever you are. A tablet-centric update that delivered a new interface optimized for devices with larger screen sizes (particularly tablets), video chat support based on Google Talk protocols, new System Bar for global status and notifications and Action Bar for application control, tabbed Web browsing, optimized soft keyboard and a new email interface.

#### **Ice Cream Sandwich (v4.0)** - Release on December 16, 2011:

Key additions: Android comes of age with a new, refined design with simple, beautiful and beyond smart. This version can updates the features of Honeycomb(old version), including Face recognition software, tabbed Web browsing capabilities, unified social networking contacts, 1080p video recording capabilities and video chat support based on Google Talk protocols.

**Jelly Bean (v4.1, v4.2 and v4.3)** - Release on 9 July 2012(v4.1), 13 November 2012(v4.2), 24 July 2013(v4.3):

Key additions: Android is fast and smooth with buttery graphics. With Google Now, you get just the right information at the right time. And with more than 1 million apps on Google Play, and thousands of Android devices, you've got the freedom to do what you want on any device you choose. Advanced natural language voice command capabilities, Improved the Web browser, enhanced file management capabilities and more.

KitKat (v4.4) - Release on October 31, 2013:

Key additions: With KitKat, we've made Android amazing for everyone. Unknown at this time, Originally internally referred to as Key Lime Pie, Google announced in early September 2013 that it would be using the iconic candy bar as the codename for the 4.4 Android release.

> Compiled by Yamuna. M. (MCA2<sup>nd</sup> Year)

```
Class MCA
  Public static void main(String args[])
  Switch (event)
         Case "CCODE":
         S.aprintln(Location: Auditorium);
         break;
        case "paper presentation":
        if(panel..1)
        s.aprintln("Location:LH6);
         if(panel..2)
        s.aprintln("Location:LH5);
         if(panel..3)
        s.aprintln("Location:LH1);
         if(panel..4)
        s.aprintln("Location: Mini Seminar Hall);
         if(panel..5)
        s.aprintln("Location:Seminar Hall);
         if(panel..6)
        s.aprintln("Location:NT);
         break;
}
                                                  Compiled by
                                  Prashanthi. Ch(MCA 3<sup>rd</sup> Year)
```

#### **Soft Computing**

Soft Computing differs from conventional (hard) computing in that, unlike hard computing, it is tolerant of imprecision, uncertainty, partial truth, and approximation. In effect, the role model for soft computing is the human mind. Principal constituents of Soft Computing are Neural Networks, Fuzzy Logic, Evolutionary Computation, Swarm Intelligence and Bayesian Networks.

The successful applications of soft computing suggest that the impact of soft computing will be felt increasingly in coming years. Soft computing is likely to play an important role in science and engineering, but eventually its influence may extend much farther

Soft Computing became a formal Computer Science area of study in the early 1990's. Earlier computational approaches could model and precisely analyze only relatively simple systems. More complex systems arising in biology, medicine, the humanities, management sciences, and similar fields often remained intractable to conventional mathematical and analytical methods. That said, it should be pointed out that simplicity and complexity of systems are relative, and many conventional mathematical models have been both challenging and very productive. Soft computing deals with imprecision, uncertainty, partial truth, and approximation to achieve tractability, robustness and low solution cost

#### **Introduction of Soft Computing**

Unlike hard computing schemes, which strive for exactness and full truth, soft computing techniques exploit the given tolerance of imprecision, partial truth, and uncertainty for a particular problem. Another common contrast comes from the observation that inductive reasoning plays a larger role in soft computing than in hard computing. Components of soft computing include: Neural Network, Perceptron, Fuzzy Systems, Baysian Network, Swarm Intelligence and Evolutionary Computation.

The highly parallel processing and layered neuronal morphology with learning abilities of the human cognitive faculty ~the brain~ provides us with a new tool for designing a cognitive machine that can learn and recognize complicated patterns like human faces and Japanese characters. The theory of fuzzy logic, the basis for soft computing, provides mathematical power for the emulation of the higher-order Neural Networks:

cognitive functions ~the thought and perception processes. A marriage between these evolving disciplines, such as neural computing, genetic algorithms and fuzzy logic, may provide a new class of computing systems ~ neural-fuzzy systems ~ for the emulation of higher-order cognitive power

Neural Networks, which are simplified models of the biological neuron system, is a massively parallel distributed processing system made up of highly interconnected neural computing elements that have the ability to learn and thereby acquire knowledge and making it available for use. It resembles the brain in two respects:

- Knowledge is acquired by the network through a learning process.

#### KEY-2019

-Interconnection strengths known as synaptic weights are used to store the knowledge

A neuron is composed of nucleus- a cell body known as soma. Attached to the soma are long irregularly shaped filaments called dendrites. The dendrites behave as input channels, all inputs from other neurons arrive through dendrites.

Another link to soma called Axon is electrically active and serves as an output channel. If the cumulative inputs received by the soma raise internal electric potential of the cell known as membrane potential, then the neuron fires by propagating the action potential down the axon to excite or inhibit other neurons. The axon terminates in a specialized contact called synapse that connects the axon with the dendrite links of another neuron

An artificial neuron model bears direct analogy to the actual constituents of biological neuron. This model forms basis of Artificial Neural Networks

> Compiled by Sravani V. (MCA 3<sup>rd</sup> Year)

#### **BIO-DATA OF INTERNET**

Name: Internet (alias) ARPANET

Year of Birth: 1960

Father Name: Vinton Gray Cerf ForMemrS

**Mothers Name**: Radia Perlman Disease I am afraid of: Hackers

Friends: Gateways

Aim: To go all around the World

Compiled by Chandana Sree K. (MCA 3<sup>rd</sup> Year)



#### A GOOD FRIEND IS LIKE A COMPUTER

A good friend is like a computer; me 'enter' ur life, 'save' u in my heart, 'format' ur problems, 'shift' u 2 opportunities & never 'delete' u from my memory!

#### **ENTER KEY!**

....Dear Computer User, I Do Appreciate Your Kind Attitude Towards The Keys of Keyboard, But one question... Why Do You Press All Keys Softly n Hit Me With All Your Power?

> Yours' Sincerely, 'ENTER' KEY!

## **CCODE**







Existing risk-based authentication systems rely on basic web communication information such as the source IP address or the velocity of transactions performed by a specific account, or originating from a certain IP address. Such information can easily be spoofed, and as such, put in question the robustness and reliability of the proposed systems.

Risk-based authentication can be applied from two different perspectives: proactively and reactively. When applied proactively, risk-based authentication can be integrated with the login process and used to block from the beginning access to users flagged as risky. In contrast, reactive riskbased authentication can be used to identify and revert ongoing or completed transactions considered as risky.

Although proactive risk-based authentication may be considered as more desirable than reactive risk-based authentication, the cost of a misclassification error is far greater in the former than in the latter. In other words, more stringent accuracy requirements underlie proactive approaches compared to reactive ones. Actually, each category is adequate for specific scenarios. While proactive risk based authentication is important in situations where confidentiality is essential such as in military or intelligence transactions, reactive risk-based authentication may be enough in situations where integrity is the primary concern. For instance, in online banking transactions, malicious transactions can be reverted (immediately) by the end of the session if the user is classified as risky.

In this talk, we present our biometrics-based security schemes that are based on keystroke dynamics, which are considered breakthrough techniques. We them introduce our new online biometric risk-based authentication system that provides more robust user identity information by combining

mouse dynamics and keystroke dynamics biometrics in a multimodal

framework. Experimental evaluation of our proposed model with 24 participants yields an Equal Error Rate of 8.21%, which is promising considering that we are dealing with free text and free mouse movements, and the fact that many web sessions tend to be very short. Moreover, we believe this performance is good for reactive risk-based authentication, where the goal is not to prevent the user from using the system, but rather to identify malicious sessions and trigger appropriate risk mitigation measures.

#### **Bio of Distinguished Keynote Speaker:**



Professor Mohammad S. Obaidatis an internationally known academic/researcher/scientist/scholar. He received his Ph.D. degree in Computer Engineering with a minor in Computer Science from the Electrical and Computer Engineering (ECE) Department, The Ohio State University, Columbus, USA. He has received extensive research funding and published about One Thousand (1000) refereed technical articles-About half of them are

journal articles, over 65 books, and over 65 Book Chapters. He is Editor-in-Chief of 3 scholarly journals and an editor of many other international journals. He is the founding Editor-in Chief of Wiley Security and Privacy Journal.

Among his previous positions are Advisor to the President of Philadelphia University for Research, Development and Information Technology, President of the Society for Molding and Simulation International, SCS, Senior Vice President of SCS, Dean of the College of Engineering at Prince Sultan University, Chair and tenured Professor at the Department of Computer and Information Science and Director of the MS Graduate Program in Data Analytics at Fordham university, Chair and tenured Professor of the Department of Computer Science and Director of the Graduate Program at Monmouth University. He is now a Full Professor at Nazarbayev University, Astana, Kazakhstan, a Full Professor at King Abdullah II School of Information Technology, University of Jordan, The PR of China Ministry of Education Distinguished Overseas Professor at the University of Science and Technology Beijing, China and an Honorary Distinguished Professor at the Amity University- A Global University. He has chaired numerous (Over 160) international conferences and has given numerous (Over 150) keynote speeches worldwide. He founded or cofounded four international conferences. He has served as ABET/CSAB evaluator and on IEEE CS Fellow Evaluation Committee. He has served as IEEE CS Distinguished Speaker/Lecturer and an ACM Distinguished Lecturer. Since 2004 has has been serving as an SCS Distinguished Lecturer. He received many best paper awards for his papers including ones from IEEE ICC and IEEE Globecom international conferences. He also received many worldwide awards for his technical contributions including: SCS prestigious

McLeod Founder's Award, Presidential Service Award, SCSHall of Fame – Lifetime Achievement Award for his technical contribution to modeling and simulation and for his outstanding visionary leadership and dedication to increasing the effectiveness and broadening the applications of modeling and simulation worldwide. He was awarded in 2017 the IEEE CITS Hall of Fame Distinguished and Eminent Award. He received very recently the 2018 IEEE ComSoc Technical Committee on Communications Software- 2018 Technical Achievement Award on original significant technical contribution to cybersecurity, computer networks and wireless networks. He has been awarded with the Amity University Distinguished Honorary Professor Award. He also received the Distinguished Professor Award from University of Science and Technology-Beijing, China, and the SCS Outstanding Service Award. He is a Life Fellow of IEEE and a Fellow of SCS.

## **Gallery**



## KEY-2019







## KEY-2019







Compiled by Prashanthi V. (MCA 3<sup>rd</sup> Year)

# NSS CAMPS

#### **KEY-2019**

#### A BRIEF **REPORT** ON SPECIAL CAMP

(02.03.17 TO 08.03.17)

#### THEME:

Youth for Health

at

DurgasamudramPanchayat Tirupati Rural Mandal Chittoor District

## SURVEY FEED BACK FROM THE VILLAGERS AND NSS VOLUNTEERS ON THE ACTIVITIES OF NSS SPECIAL CAMP FROM 02.03.17 TO 08.03.17

S. No.	Name of the Activity	Feedback from	
		/illagers	Volunteers
I.	ectures		
	1. Prof. P. Suvarnalathadevi	4.6	4.6
	2. Prof. M. Usharani	4.6	4.6
	3. Prof. N. Rajini	4.7	4.7
	4. Dr. K. Sunitha	4.6	4.5
	5. Dr. Charla Latha	4.5	4.5
	6. Dr. G. Indria Priyadarshini	4.6	4.6
	7. Dr. G. Sirisha	4.6	4.6
	8. Prof. N.B.Chandra Kala	4.8	4.9
II.	lealth Camps		
	1. Medical Eye Camp	4.3	3.9
	2. S.V. Ayurveda Medical Camp	4.9	4.9
	3. Homeo Medical Camp	4.8	4.7
III.	ecture cum Demonstration		
	1. Vermi compost	4.7	4.2
	2. Organic Forming	4.0	3.9
IV.	xhibitions		
	1. HIV/AIDS	4.0	4.2
	2. Cigarette/Alcohol smoking	4.2	4.4
	3. Mosquito Born Diseases	4.1	4.3
	4. Women Empowerment	3.9	4.5
	5. Environment Protection	4.0	4.1
	6. Literacy	4.0	4.2
	7. Cashless Transactions	4.7	4.6
V.	Rallies		
	1. HIV/AIDS	4.5	4.5
	2. Organ Donation	4.5	4.5
	3. Cigarette/Alcohol smoking	4.5	4.5
	4. Cashless transactions	4.6	4.7
VI.	rogrammes for the Development of Villages		
	1. Plantation	4.9	4.8
		4.1	4.1

#### KEY-2019

	2. Cashless transactions		
VII.	Cultural Programmes		
	1. Skit on Child Marriages	4.3	4.6
	2. Skit on Equality of Gender	4.4	4.6
	3. Skit on Family Counseling	4.1	4.5
	4. Dance & Singing Competitions	4.7	4.8
	5. Games to Elders	4.7	4.8
	6. Games to Children		
		4.7	4.7
	hning Race & Kho-Kho	4.7	47
	nd Game		
VIII.	ramadanam	4.2	4.4

#### A BRIEF ACTIVITY REPORT

for (01.04.19 to 30.08.19) NSS Programme Co-ordinator Prof. J. Kathyayani NSS Bureau SPMVV, Tirupati.

#### International Day of Yoga was Celebrated on 21st June 2019

International Day of Yoga was Celebrated on 21st June 2019 by the Department of Physical Education, Prof. Muragaiah, Dean, Social Sciences ,Humanities and management , Prof. A.Jyothi, Dean School of Sciences invited as a Chief guests, Ms.Ganga Bhavani,Principal College of Nursing Prof.K.Katyani, NSS Coordinator and Heads of various Departments, Students, Teaching and Non-Teaching Staff participated and performed Yogasanas ( Yoga protocol) from 7.Am to 8A.M. in the SPMVV Indoor stadium. The invited guests Prof. Muragaiah and Prof. A.Jyothi addressed the gathering and enlightened the importance of yoga in daily life and spoke about influence of yoga. NSS Volunteers participated along with 12 Units Programme Officers in this programme.





A personality development programme on 27-07-2019(Saturday), presented by Dr K Suneetha, Dept. of Law,SPMVV in Computer Science Dept. on topic "Rights, Duties and Personality Development". Prof. M. Usha Rani Dept. of Computer Science and other faculty along with volunteers from MCA and M.Sc. Biotechnology students were participated.



31-07-2019, Elocution competition on the topic "Gandhi Ideology on Women Empowerment" at Humanities Block.(in both Telugu and English).



Biogas Awareness programme at Adapareddipalli, Chandragiri mandal on

Unit I and Unit II PO'S and Volunteers participated in this programme. Volunteers have visited village and interacted with households and explained the significance of Bio-Gas Plantation.

03-08-2019 saturday



World Organ donation day on 13-08-2019, Awareness programme on Organ donation atn Seminar hall, Humanities Bloack by Mr Shiva.S V University Social work dept. Prof.J.Kathyayani, NSS Coordinator, Dean Prof. A.Jyothi and all Programme Officers of NSS Units participated.

**Organ Donation Day** is observed every year on 13th of August. The aim of this **day** is to motivate normal human beings to pledge to **donate organs** after death, and to spread awareness about the importance of **organ donation**.



Plantation Programme on Saturday 24-08-2019 at dept premises and university premises.



29-08-2019, Pathasanambatla, Adopted Village," Fit India Movement"n Awareness Programme conducted Panchayat secretary: Nazeera Begum, VRO and Grama Volunteers: 11 and Villagers participated.

MCA Volunteers 10, Home Science 2, Journalism -2, Physical Education-1 participated.



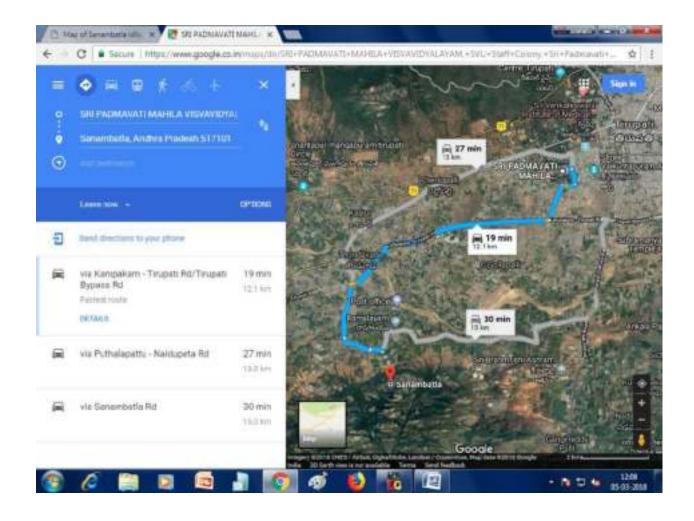
Pledge



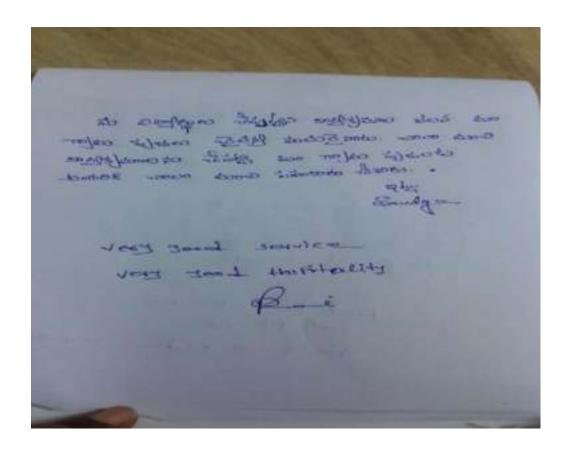
#### Yoga Asanas

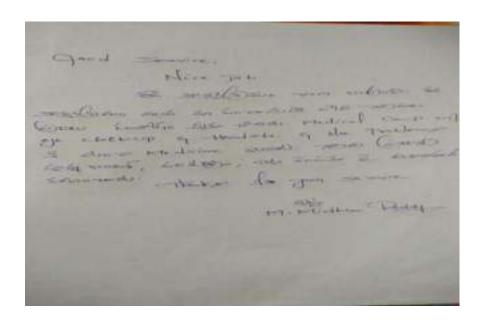


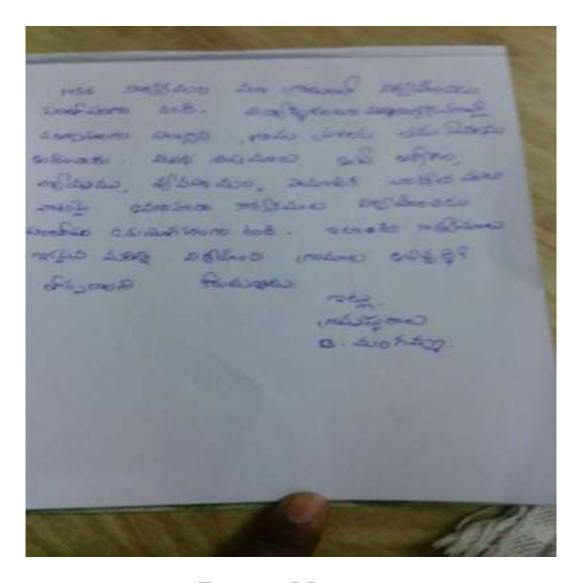
## SANAMBATLA VILLAGE MAP



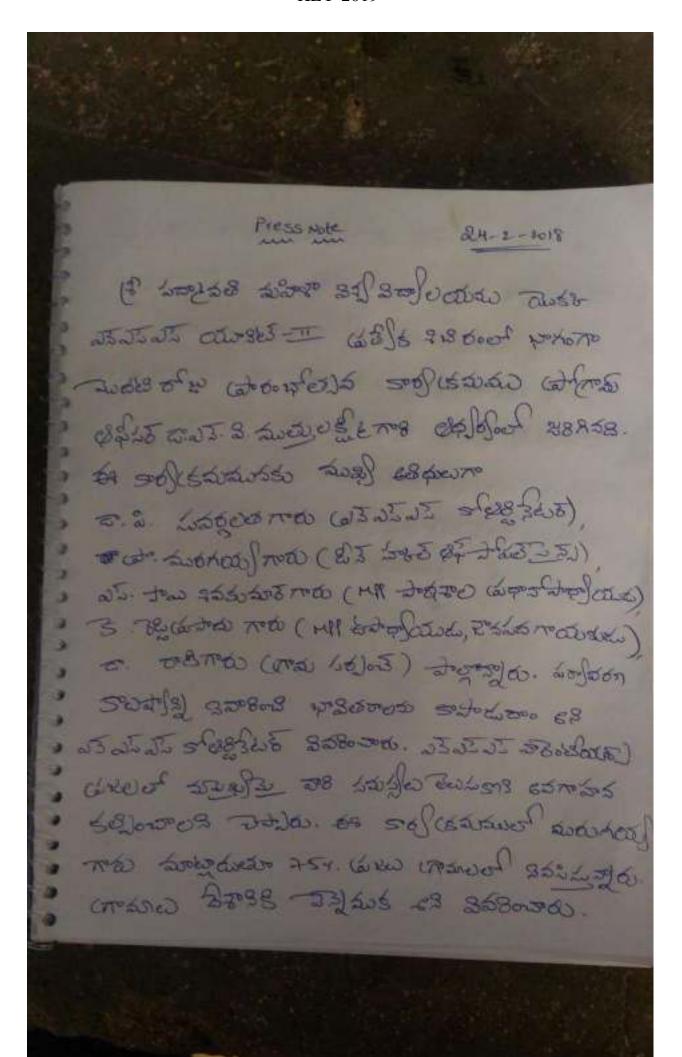
## Feedback from villagers

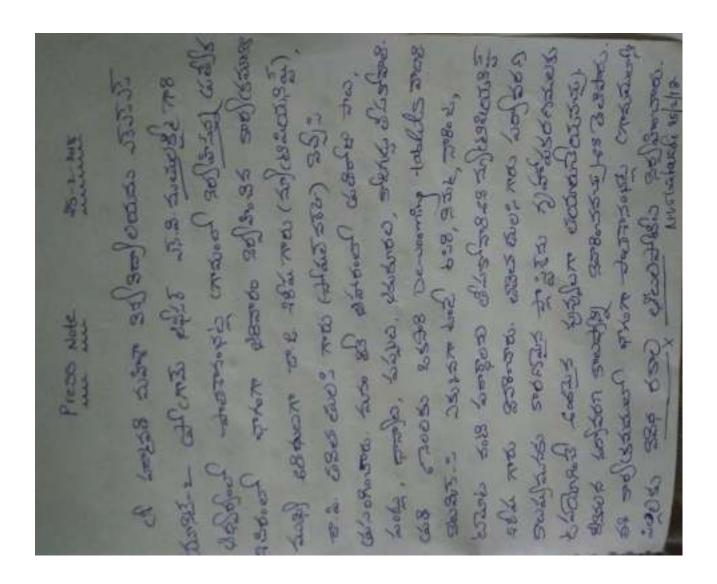






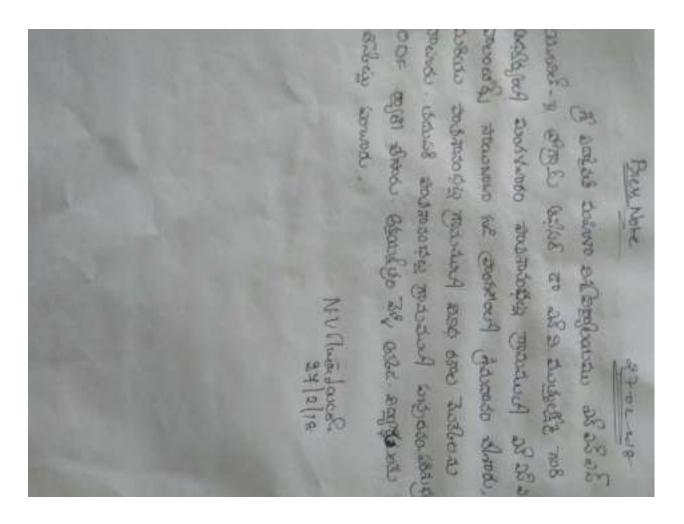
**Press Notes** 



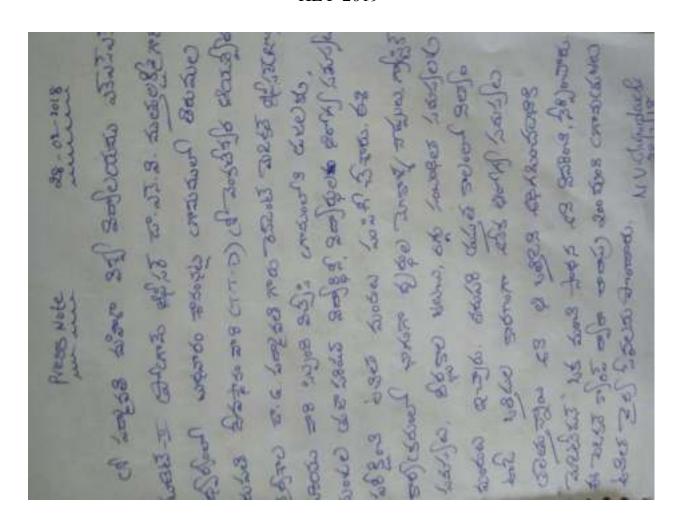


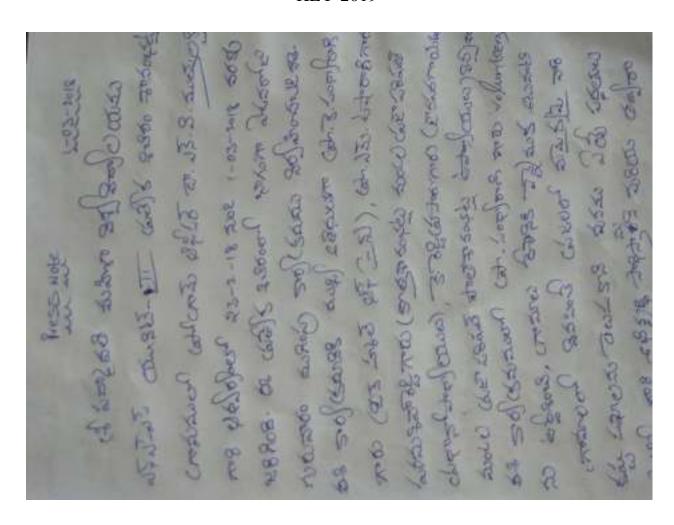
Press Note 26-2-2018 ල් වසුවෙය ආශාරීම නැතිමක්දුල් අතු අත්තිය අත්තිය - ම कितिक 800 र हें के के का की की का की की कित कितिक किति ಕ್ರಮಾರಂ ನೌನಂಭಪ್ಪ ಗಾಮಮುಲ್) ಎನ್ಎಸ್ಎಸ್ ತಾಲಂಪರಿ Denotes नी नार्या, हर व्याउट कर्मिया हिंदी रेक्ट्रिक राष्ट्रिक करा ಮಿಕಿಯು ನಿಚರಪ್ರಭಾಷ್ಟ್ ವಿಥಕಾಲ, ಕಾಂಕ್ಷಕ್ ಸಮಸ್ಥೆಲ ಹಿಲ್ಲಾಯಕ್ಕಾ సంబంధిత ఆధికారులకు తెలియుడేస్తానున్నారు. తదుపెకి నాయార్లు ಗ್ರಾಮಂತ್ರಿಕ ಮಂದಲ್ಪಣೆಗಳ ಪ್ರಾಧಿಕ್ಕ ವಿದ್ಯಾಗಿಕ್ಕಾರ ಕಾತ್ರಕ್ಷಣೆಗಳು sin File Dollwound. LIV Tues dans

### KEY-2019



### KEY-2019





## PRESS COVERAGE



# PHOTO GALLERY

**23-02-2018:** NSS Special Camp, Flag hosting by Dr. K. Sandhya Rani, Prof P. Suvarnalatha Devi, NSS Co-ordinator, Prof P. Venkata Krishna, Dept. of Computer Science and other faculty members.





Rally for Special camp programmes, Sanambatla Panchayat



### 24-02-2018: Inauguration

Dr.P.SwarnaLatha, NSS Program Co-ordinator, Prof. Muragayya, Dean of Social Sciences, MPP school Head Master Mr. S. Sai Siva Kumar, Sri. Reddyprasad,

Sarpanch Smt. Rani & Villagers Participated.



Paper Clipping



24-02-2018: Fundamental Rights, Law Lecture by Dr. K. Suneetha



25-02-2018: : Awareness on Nutritional Foods by Dr.

G.Sireesha

and Dr.P.Thavitha thulasi - Making useful products from waste materials. Also conducted games at Pathasanambatla village.



### Paper Clipping

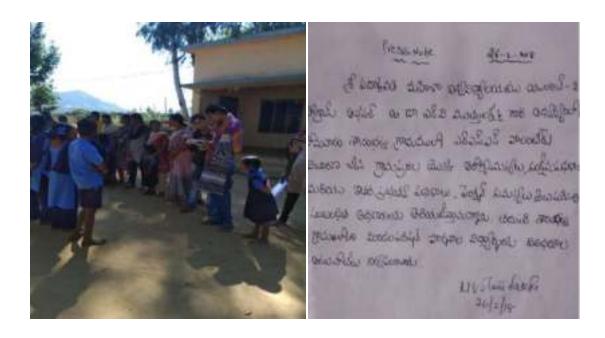


26-02-2018: Survey conducted by the NSS volunteers in Kothasanampatla & Harijanwada



Games Conducted at Kothasanapatla Village





27-02-2018: Sramadanam & Plantation Programme, Rally on ODF



27-02-2017: School Teacher Sri. Reddy prasad sang a song on NSS & Its Role in Soceity at the gathering



**28-02-2018:** TTD Ayurvedic Hospital Free Medical Camp, Meditation Classes by Dr. M. Padmavati, RMO & Services at Akshyakshetram (Mentally Challenged People)

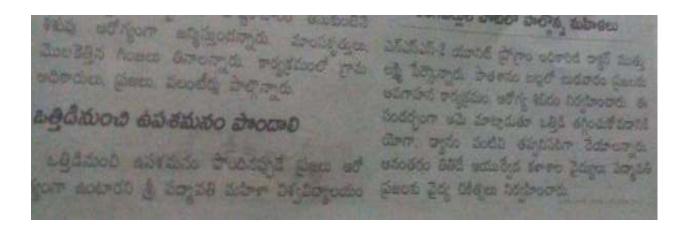








Paper Clipping



01-03-2018: Valedictory Function- Chief Guest: Prof k. Sandhya Rani, Dean, School of Science, Prof M. Usha Rani, Dept. of Computer Science, Sri. Paramsiva Reddy, Head Master, K. Sanampatla, Sri. Reddy Prasad, P. Sanampatla, Officers & Villagers. Distribution of Certificate & Prize Distribution, Feedback from Villagers.

### KEY-2019









Compiled by Vasavi. (MCA 3<sup>rd</sup> Year)



### **DREAMS IN PROGRAMME**

```
#include<night.h>
#include < food.h >
#include < bed.h >
#include < dreams.h >
void me()
      char person;
      clrscr();
       If (person= =atefood)
             printf("The person wants to go to bed and
                      fell into dreams");
             printf("gud night");
          }
       else
             printf("please have your dinner");
  }
                                                      Compiled by
                                            Rajiya. (MCA 3<sup>rd</sup> Year)
```

### 

### **GOOD PROGRAMMER**

```
Teacher Gave Him Punishment

To Write 5000 Times

"I Will Not Throw Paper Airplanes In Class..."

And Submit It Tomorrow...

Day, He Submitted The Paper Write

#Include

Void Main()

{
    clrscr();
    for(int N=1; N<=5000; N++)
        printf("I Will Not Throw Paper Airplanes In Class")
}
```

Be A Programmer... Think Differently

### FREE WEB TOOLS AND OPEN SOURCE SOFTWARE FOR **STUDENTS**

Commercial software purchases can quickly eat away at the budget you have. The good news is that there are many free Web tools and open source software for students that will help you stay on task and organize your busy student life.

If you are a student you're probably wondering how to manage the cost of tuition, books and living expenses and still pay for the software you need for your student laptop or desktop computer for research and assignments. Commercial software purchases can quickly eat away at the budget you have.

The good news is that there are many free Web tools and open source software for students that will help you stay on task and organize your busy student life. From typing reports to taking and sharing class notes, this list of 30 free Web tools and open source software will help you get through your courses without spending a dime on software.

### > Free Web-Based and Open Source Software Communication Tools:

- 1. Gmail is Google's online email (Web mail) service. You can register for a free email account and access a number of feature including storage, search, built-in chat, mobile access, voice chat, spam filters and more. Google frequently rolls out updates and new features to the Gmail service.
- 2. Meebo integrates a number of online communication channels and platforms into a single service. The Meebo Messenger lets you access your buddies on all the major networks (AIM, Yahoo!, Windows Live Messenger, Google Talk, ICQ, Jabber) in a single buddy list, right from your Web browser.
- 3. Opera Mail is a free email client that is built into your Web browser. Opera Mail organizes, indexes, and sorts your messages. It also integrates RSS feeds and a smart spam filter.
- **4.** Thunderbird 3.1 is a free, customizable messaging and email client. All you need is your name, email address, and password to get started. Thunderbird is help individuals manage their online communications including email, instant messaging and social networking messages. Thunderbird is available for Windows, Mac OS X and Linux systems.

### > Free Web-Based and Open Source Software Collaboration and Scheduling Tools:

- 5. GanttProject is a free and open source desktop tool for project scheduling and management. The software can be used by students to Share projects and collaborate. GanttProject runs on Windows, Mac OS X and Linux systems.
- 6. TimetoMeet is a web-based scheduling tool that lets students find a common time to meet with others to work on assignments and projects. TimetoMeet can automatically synchronize your calendar from Outlook, iCal or Google and show your appointments all in one place.
- > Free Web-Based and Open Source Software Document Editing and Management Tools:

- 7. EditGrid An online spreadsheet service that offers many of the same features found in Excel. EditGrid allows you to share, collaborate and publish your spreadsheet online.
- 8. Google Docs is a free Web-based productivity spread that gives students free software to work with documents (word processing), spreadsheets, presentations, drawings and forms. You can upload files from your desktop, access the files from any Internetconnected computer, and collaborate with classmates and teachers.
- 9. **PDFCreator** is an open source program that lets you create PDF files from any Windows program. The software is used like a printer in Word, StarCalc or any other Windows application.
- 10. Zoho Writer is an online word processor that lets students create documents on an individual basis or within a group for real time collaboration. Zoho Writer features a WYSIWYG editor for publishing to blog and you can import (or export) documents from your desktop, Google Docs or anywhere on the Web.
- > Free Web-Based and Open Source Software Presentation Tools:
- 11. Embeddable Presentations from Google Docs lets you create and collaborate on slideshow presentations. You can add text, images, video and more directly to your presentation slides. Google Docs accepts most popular file formats, including PPT.
- 12. Zoho Show 2.0 is an online tool for creating presentations. Zoho Show offers pre-built themes, clipart and shapes coupled with features like drag-and-drop makes it an easy application to use.
- > Free Web-Based and Open Source Software Task & Time Management Tools:
- 13. Google Calendar is a free web-based tool from Google. The service provides an easy way for busy students to create, organize and schedule assignments, lectures, social events and more. You can also share your schedule so family and friends can view schedules that others have shared with you. Google Calendar also helps you to send invitations, track RSVPs and it syncs with desktop applications like Microsoft Outlook, Apple iCal and Mozilla Sunbird.
- 14. Remember The Milk is a free Web service that can help you manage your tasks online. Remember The Milk lets you create and manage tasks, set due dates and then get reminders about your scheduled tasks through email or instant messenger. You can also create lists and Share, send and publish tasks with other contacts.
- > Free Web-Based and Open Source Software Mathematics and Modeling Tools:
- 15. GNU Octave is an open source high-level interpreted language intended for numerical computations. It provides capabilities for the numerical solution of linear and nonlinear problems, and for performing other numerical experiments. GNU Octave also provides extensive graphics capabilities for data visualization and manipulation. The current version is Version 3.4.0 and it is available for Linux, Mac OS X and other projects have contributed to a Windows binary distribution of Octave and a binary distribution of Octave for Sun systems. There is also a collection of contributed packages for Octave available.

- 16. Graphing Calculator from e-Tutor is an online Web tool that lets students enter functions of x using a standard mathematical format. Students simply type one or more equations into the Graph box on the site to use the graphing calculator.
- 17. Mathway is an online tool that provides students with the tools they need to solve their math problems. Mathway solves problems from the following subjects: Basic Math, Pre-Algebra, Algebra, Trigonometry, Precalculus, Calculus and Statistics.
- 18. Sage is a free open-source mathematics software suite system licensed under the GPL. It combines the power of many existing open-source packages into a common Python-based interface. Sage mathematical software is designed for research and teaching. It is a viable free open source alternative to Magma, Maple, Mathematical and Matlab.

### > Free Web-Based and Open Source Software for Note Taking:

- 19. NoteMesh is a free online service that allows students in the same classes to share notes with each other. It works by creating a wiki for individual classes that users can edit. Users are free to post their own lecture notes or contribute to existing lecture notes.
- 20. WebNotes (Lite version) is a free online service that lets students highlight and add notes to Webpages from within your web browser. The notes are saved automatically and will reappear any time you visit the page. Highlighted web pages and PDFs can be shared with others through email, permalink, or Twitter.

### > Free Web References and Educational Guides for Students:

- 21. EasyBib is a free Web tool that provides automatic bibliography and citations. The service lets you search for a source, build the bibliography and then print or export it.
- 22. Google is a multi-functional "app" for students. The search engine can help you find articles for research and it also serves as a calculator, definition finder, a conversion tool and more.
- 23. Google News search (with the archive search option) is a good tool for students who need to research historical or current events.
- 24. Bookfinder is a search-based online resource that can help students find the best prices on new and used textbooks, rentals, old editions, and international edition textbooks.
- 25. SparkNotes is a Web resource designed to help students understand books, write papers, and study for tests.
- 26. SpellJax is a handy little online Ajax spell checker. Just type (or paste) in the text to spell check it.
- 27. Webopedia (That's us!) is a free online searchable database of computer, Internet and technology definitions.

### > Open Source E-Learning Platforms for Educators:

28. Claroline is an Open Source e-learning and e-working platform that allows teachers to build effective online courses and to manage learning and collaborative activities on the web. The software package is based on PHP/MySQL and has been translated into 35 languages. It is available for Windows, Unix, Linux and Mac OS X.

- **29. Dokeos** is online learning suite software. It is open source and offered as a free download with community-based support. Some features of the platform include SCORM compliant course import, support for multimedia content, test creation, course sequence building, forums, and videoconferencing.
- 30. Sakai is a Java-based e-learning platform that provides all the tools needed for online teaching, learning, research and collaboration for education. Those who want to experiment on their own hardware and operating system can download and install an already compiled binary for their platform of choice.

Compiled by *Krishnaveani(MCA 3<sup>rd</sup> Year)* 

### WINDOW'S SHORTCUTS

### Desktop Shortcut keys

To get to your Windows desktop when you have several different windows open.

Win key + M Win key + Shift + M gets them all back again.

Win key + D toggles between open applications and the desktop.

To close all windows and applications quickly press Alt + F4

Win Key (Wk) Shortcuts

Wk Show Start Menu

Wk + D Desktop (toggle)

Wk + E Windows Explorer

Wk + F Find

Wk + R Run

Wk + Pause System Properties

Wk + Tab Steps through the programmes on the taskbar

Wk + F1 Windows Help

Wk + M Minimizes all open windows (+ shift M undoes the minimizing)

Wk + BREAK System properties

Wk + L Lock Keyboard

Wk + U Utility Manager

Wk + SHIFT + M Restore minimized Windows

Wk + CTRL + F Search for computers

WK + BREAK Display system properties dialogue box

### Expand All Folders in Windows Explorer

If you want to expand all the folders and subfolders for a particular drive, click on that drive and press the '\*' key on the numeric keyboard Expand individual highlighted folders press

#### Microsoft Access keyboard shortcuts

Enter the Value that Appears in the Same Field in the Previous Record Keyboard Shortcut: Ctrl+' (apostrophe).

To undo typing CTRL + Z or ALT + BACKSPACE

To Undo changes Hit ESC once for current field, ESC twice for current record

To insert the current date CTRL + SEMICOLON (;)

To insert the current time CTRL + COLON (:)

To insert the default value for a field CTRL +ALT + SPACEBAR

To insert the value from the same CTRL + APOSTROPHE (') field in the previous record

To add a new record CTRL + PLUS SIGN (+)

To delete the current record CTRL + MINUS SIGN (-)

To recalculate the fields in the window F9

#### Paint Shop Pro shortcuts

CTRL+Z Undo

CTRL+N Create a new image

CTRL + Shift + T Displays all toolbars

CTRL+A Select All

CTRL+D Deselects the current selection

CTRL+S Save

F12 Save As

CTRL+C Copy

CTRL+X Cut

CTRL+V Paste as a New Image

CTRL+L Paste as a New Layer

CTRL+E Paste as a New Selection

Shift +S Resize an image

CTRL+R Rotate an image

CTRL+B Browse your images (display images in a folder)

### Microsoft Excel

**HOME Beginning of row** 

CTRL + END Bottom of worksheet

CTRL + PAGE UP / PAGE DOWN Different sheet

END + RETURN End of row

CTRL + SPACEBAR Entire column

SHIFT + SPACEBAR Entire row

CTRL + A Entire worksheet

F8 Extend selection

CTRL + F6 Go to next workbook

CTRL + SHIFT + F6 Go to previous workbook

PAGE UP / PAGE DOWN Previous / next screen

CTRL + HOME Top of worksheet

ALT+= Autosum

CTRL + B Bold

CTRL + I Italic

CTRL + U Underline

CTRL + SHIFT+& Border cells (outline)

SHIFT + File Menu Close all workbooks

CTRL + F4 Close workbook

CTRL + SHIFT + S Currency number format

CTRL +X Cut

CTRL + : Date

CTRL + SHIFT +: Time

CTRL + - Delete cells

F2 Edit cell

CTRL + D Fill down

CTRL + R Fill right

F1 Help

CTRL + 9 Hide rows

CTRL + 0 Hide columns

CTRL + SHIFT + + Insert cells

F11 Insert chart

ALT + SHIFT + F1 New worksheet

CTRL + O / CTRL + F12 Open workbook

CTRL + P / CTRL + SHIFT + F12 Print workbook

CTRL + FV Print preview

CTRL + SHIFT + \_ Remove borders

F4 Repeat last action

CTRL + S / SHIFT + F12

CTRL + ALT + TAB Tab in cell

CTRL + Z Undo

CTRL + SHIFT + ( Unhide rows

CTRL + SHIFT + ) Unhide columns

Microsoft Word

CTRL+SHIFT+A All caps

CTRL+B Bold

CTRL+I Italic

CTRL+U Underline

CTRL+E Centre

SHIFT+F3 Change case of letters

CTRL+SHIFT+F Change font

CTRL+W Close document

CTRL+C Copy

CTRL+V Paste

CTRL+X Cut

CTRL+2 Double line spacing

CTRL+SHIFT+D Double underline

CTRL+END End of document

CTRL+HOME Start of document

CTRL+F Find

CTRL+D Format font

SHIFT+F5 Go back to last position

CTRL+G /F5 Go to

CTRL+F6 Go to next document

CTRL+M Indent

ALT+SHIFT+D Insert date field

CTRL+J Justify

CTRL+L Left justify

SHIFT+RETURN Line break

CTRL+N New document

CTRL+SHIFT+8 Show/Hide

CTRL+SHIFT+N Normal style

ALT+CTRL+N Normal view

CTRL+O Open document

CTRL+RETURN Page break

ALT+CTRL+P Page layout view

CTRL+P Print document

CTRL+F2 Print preview

CTRL+SHIFT+M Remove indent

CTRL+R Right justify

F12 Save as

### KEY-2019

CTRL+S/SHIFT+F12 Save document CTRL+A Select document ALT+5 Select table CTRL+1 Single line spacing CTRL+SHIFT+K Small caps F7 Spelling and thesaurus check SHIFT+F7 Thesaurus

### Internet Explorer 8

CTRL + F Find
F11 Full Screen
F12 Developer Tools
CTRL + + Zoom In
CTRL + - Zoom Out
CTRL + N Open current webpage in new window
CTRL + 0 Zoom to 100%
ALT + HOME Go to home page
ALT + LEFT Go backwards

### Know your Internet browser shortcuts

There are dozens of different shortcut keys that can be used with Internet browsers. Below are a few of our top suggested Internet browser shortcuts.

- Pressing Alt + D in any major Internet browser will move the cursor into the address bar. This is a great way to quickly enter an Internet address without having to click the mouse cursor in the address bar.
- Hold down the **Ctrl key and press the + or -** to increase and decrease the size of text.
- Press the backspace key or hold down the Alt key + left arrow to go back a page.
- Press **F5** to refresh or reload a web page.
- Press **F11** to make the Internet browser screen full screen. Press F11 again to return back to the normal view.
- Press **Ctrl** + **B** to open your Internet bookmarks.
- Press Ctrl + F to open the find box in the browser to search for text within the web page you're looking at.

Compiled by *Padmaja*. (*MCA* 3<sup>rd</sup> year)

### KEY-2019

00000000000000000000000000000000000000	
0000000 00000000 0000 000000 0000000 000000	
00000 0000000000 0000000 000000 00000000	

Written by Geetha G. (MCA 3<sup>rd</sup> year)

## **UPCOMING TECHNOLOGY THAT MAY CHANGE THE**

""WORLD""



### 3D Password

Usually the authentication scheme the user undergoes is particularly very lenient or very strict. With all the means of technology developing, it has become very easy for others to fabricate or to steal identity or to hack someone?s password. Users nowadays are provided with major password stereotypes such as textual passwords, biometric scanning, tokens or cards (such as an ATM) etc . Mostly textual passwords follow an encryption algorithm. Biometric scanning is your "natural" signature and Cards or Tokens prove your validity. But some people hate the fact to carry around their cards, some refuse to undergo strong IR exposure to their retinas(Biometric scanning). Mostly textual passwords, nowadays, are kept very simple say a word from the dictionary or their pet names etc.? Year?s back the tests were performed and people could crack 10-15 passwords per day. Now with the technology change, fast processors and many tools on the Internet this has become a child's play. Therefore the idea of 3D passwords, are more customizable and very interesting way of authentication. Now the passwords are based on the fact of human memory. Generally simple passwords are set so as to quickly recall them. The human memory, in our scheme has to undergo the facts of Recognition, Recalling, Biometrics or Token based authentication. Once implemented and you log in to a secure site, the 3D password GUI opens up. This is an additional textual password which the user can simply put. Once he goes through the first authentication, a 3D virtual room will open on the screen for e.g. a garage. Now in a day to day garage one will find all sorts of tools, equipments, etc. each of them having unique properties. The user will then interact with these properties accordingly. Each object in the 3D space, can be moved around in an (x,y,z) plane. That?s the moving attribute of each object. This property is common to all the objects in the space. That can be identified as an authentication. Only the true user understands and recognizes the object which he has to choose among many. This is the Recall and Recognition part of human memory coming into play. There can be levels of authentication a user can undergo which can be implemented so as to enhance security.



This system is a multi factor authentication scheme. It can combine all existing authentication schemes into a single 3D virtual environment .This 3D virtual environment contains several objects or items with which the user can interact. The user is presented with this 3D virtual environment where the user navigates and interacts with various objects. The sequence of actions and interactions toward the objects inside the 3D environment constructs the user's 3D password. The 3D password can combine most existing authentication schemes such as textual passwords, graphical passwords, and various types of biometrics into a 3D virtual environment. The choice of what authentication schemes will be part of the user's 3D password reflects the user's preferences and requirements. A user who prefers to remember and recall a password might choose textual and graphical password as part of their 3D password. On the other hand users who have more difficulty with memory or recall might prefer to choose smart cards or biometrics as part of their 3D password. Moreover user who prefers to keep any kind of biometric data private might not interact with object that requires biometric information. Therefore it is the user's choice and decision to construct the desired and preferred 3D password.

Compiled by

Lavanya M. (MCA 3<sup>rd</sup> Year)

#### BLUE BRAIN

Blue brain "-The name of the world's first virtual brain. That means a machine that can function as human brain.

Today scientists are in research to create an artificial brain that can think, response, take decision, and keep anything in memory.

The main aim is to upload human brain into machine. So that man can think, take decision without any effort. After the death of the body, the virtual brain will act as the man .So, even after the death of a person we will not loose the knowledge, intelligence, personalities, feelings and memories of that man that can be used for the development of the human society.

No one has ever understood the complexity of human brain. It is complex than any circuitry in the world. So, question may arise "Is it really possible to create a human brain?" The answer is "Yes". Because what ever man has created today always he has followed the nature. When man does not have a device called computer, it was a big question for all .But today it is possible due to the technology. Technology is growing faster than every thing. IBM is now in research to create a virtual brain. It is called "Blue brain". If possible, this would be the first virtual brain of the world.





### How it is possible?

First, it is helpful to describe the basic manners in which a person may be uploaded into a computer. Raymond Kurzweil recently provided an interesting paper on this topic. In it, he describes both invasive and noninvasive techniques. The most promising is the use of very small robots, or nanobots. These robots will be small enough to travel throughout our circulatory systems. Traveling into the spine and brain, they will be able to monitor the activity and structure of our central nervous system. They will be able to provide an interface with computers that is as close as our mind can be while we still reside in our biological form.

Nanobots could also carefully scan the structure of our brain, providing a complete readout of the connections between each neuron. They would also record the current state of the brain. This information, when entered into a computer, could then continue to function as us. All that is required is a computer with large enough storage space and processing power.

Is the pattern and state of neuron connections in our brain truly all that makes up our conscious selves? Many people believe firmly those we posses a soul, while some very technical people believe that quantum forces contribute to our awareness. But we have to now think technically. Note, however, that we need not know how the brain actually functions, to transfer it to a computer. We need only know the media and contents. The actual mystery of how we achieved consciousness in the first place, or how we maintain it, is a separate discussion.

Compiled by

Chandana Sree K(MCA 3<sup>rd</sup> Year)

#### **INVISIBLE EYE**

The main agenda of this work is to design advanced security with affordable and less complex system referred as "Invisible Eye". In this modern era, property crimes are more predominant which necessitates developing an advanced security system.

It is a single camera based security system which is used to protect the valuables kept in room. This system can be used when slew around the room and recorded when it is alerted by the presence of any intrusion . Manager can only view the footage which was alerted on the presence of intrusion. This type of system would lead to less time consuming and this will

help to keep track of the intruder easily in less time. Once the intruder has been detected this information about intrusion will be directed to the cop through the E-mail. Such a system would consist three components – sensors that detect intrusion; the camera that slews to the point of intrusion and takes pictures; and the keypad that is used to interface with the system which allows any person to disable the system by entering the right password

#### **DESIGN METHODOLOGY**

Invisible eye an advanced security system is mainly designed to use a single camera to perform the security. The reason for security is, the user of a system may have valuable belongings kept in his home, or a jewellery shop owner need security at night times for his property. The present technologies have many disadvantages like multiple camera's, more cost, power consumption, the owner has to always view the recording of the footage without any assurance of the theft. One can design the model using different sensors like motion sensor, vibration sensor, the motion sensor detects the motion of a human being in that particular area where a sensor is placed. Once the sensor, senses the motion or vibration it sends that information of motion to the Microcontroller. Here we are using stepper motor, wireless camera and also a PC.

### **Modern Systems:**

Today's security systems are extremely effective in preventing burglary and thefts as well as helping police respond to emergency situations. The mainstay of the home security system is definitely the high decibel siren. Today the siren is used to ward off would be intruders not for monitoring purposes. In most cases home security systems are monitored by large companies with multiple monitoring centers. These centers house countless trained professionals who are there in times of need for residences and businesses across the country. These monitoring centers also can provide support for other potential disasters such as carbon monoxide, fire, freezing pipes, and much more.

Modern security systems use alarms, infrared motion sensors, digital surveillance and contemporary monitoring stations. Monitoring is extremely efficient and emergency response time for triggered alarms has improved dramatically due to technology

### Working

Step1: User enters the password, if password entered is correct the system starts else he is prompted to re-enter the password.

Step 2: If sensors sense any change, then an intrusion is detected. Else there is no intrusion.

Step 3: If intrusion is detected, then relay triggered, stepper motor rotates the camera starts recording and an e-mail is sent to the user

Compiled by

C.Anusha(MCA 3<sup>rd</sup> Year)

#### E-BALL TECHNOLOGY

A new concept of pc is coming now that is E-Ball Concept pc. The E-Ball concept pc is a sphere shaped computer which is the smallest design among all the laptops and desktops. This computer has all the feature like a traditional computer, elements like keyboard or mouse., dvd, large screen display.



E Ball is designed that pc is be placed on two stands, opens by pressing and holding the two buttons located on each side of the E-Ball pc, this pc is the latest concept technology. The E-Ball is a sphere shaped computer concept which is the smallest design among all the laptops and desktops have ever made.

This PC concept features all the traditional elements like mouse, keyboard, large screen display, DVD recorder, etc, all in an innovative manner. E-Ball is designed to be placed on two stands, opens by simultaneously pressing and holding the two buttons located on each side. After opening the stand and turning ON the PC, pressing the detaching mouse button will allow you to detach the optical mouse from the PC body. This concept features a laser keyboard that can be activated by pressing the particular button. E-Ball is very small, it is having only 6 inch diameter sphere. It is having 120×120mm motherboard.

E Ball concept pc don't have any external display unit, it has a button when you press this button a projector will pop and it focus the computer screen on the wall which can be adjusted with navigation keys. If there is no wall then it has a paper sheet holder that divides into three pieces like an umbrella just after popping up, and it will show desktop on the paper sheet. Also, the E-Ball PC supports a paper holder and the paper sheet on the holder could act like a screen where you can watch movies or something. This concept PC will measure 160mm in diameter and it was designed for Microsoft Windows OS, sorry about the others. For the moment there is no word on pricing or when it's going to be available, however, I am sure that everybody would like to see a small spherical PC like this one

Compiled by

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### **TOP TRENDS FOR 2019**



IEEE Computer Society journals, magazines, and conferences are continually at the forefront of current technology trends. That's just one of the reasons that IEEE Computer Society is the community for technology leaders. As a technology professional, keeping on top of trends is crucial. Below are a list of technology topics that Computer Society magazines, journals, and conferences will be focusing on next year.

### 1) Internet of Things

The Internet of Things is more than just the newest buzzword. The IOT promises to be the most disruptive technological revolution since the advent of the World Wide Web. Projections indicate that up to 100 billion uniquely identifiable objects will be connected to the Internet by 2020, but human understanding of the underlying technologies has not kept pace. This creates a fundamental challenge to researchers, with enormous technical, socioeconomic, political, and even spiritual consequences. In recognition of the importance of IOT.

### 2) Big Data Visualization

We've entered a data-driven era, in which data are continuously acquired for a variety of purposes. The ability to make timely decisions based on available data is crucial to business success, clinical treatments, cyber and national security, and disaster management. Additionally, the data generated from large-scale simulations, astronomical observatories, high-throughput experiments, or high-resolution sensors will help lead to new discoveries if scientists have adequate tools to extract knowledge from them.

### 3) Cloud Computing in Science and Engineering

Clouds provide on-demand access to computing utilities, an abstraction of unlimited computing resources, and support for on-demand scale-up, scale-down, and scale-out. Cloud platforms are also rapidly becoming viable for scientific exploration and discovery, as well as education. As a result, it is critical to understand application formulations and usage modes that are meaningful in such a hybrid infrastructure, the fundamental conceptual and technological challenges, and ways that applications can effectively utilize clouds. The goal of this 2013 special issue of *IEEE Computing in Science & Engineering* is to explore how cloud platforms and abstractions, either by themselves or in combination with other

platforms, can be effectively used to support real-world science and engineering applications. Topics of interest include algorithmic and application formulations, programming models and systems, runtime systems and middleware, end-to-end application workflows, and experiences with real applications.

### 4) Artificial Intelligence

AI is already significantly impacting the way customers interact with businesses via intelligent websites and bots, and these tools are becoming increasingly commoditized and integrated into daily work, the report noted.

"The largest impacts across all industries—from retail to healthcare, hospitality to finance—are felt when AI improves data security, decision-making speed and accuracy, and employee output and training," Maddy Martin, community vice chair and head of growth and education for Smith.ai, said in the release. "With more capable staff, better-qualified sales leads, more efficient issue resolution, and systems that feed actual data back in for future process and product improvements, companies employing AI technologies can use resources with far greater efficiency. Best of all, as investment and competition increase in the AI realm, costs are reduced."

#### 5) 5G

The rise of 5G networks is increasing our ability to move, manipulate, and analyze data across wireless platforms, according to CompTIA. As 5G rolls out more fully in the coming years, it will drive the development of more complex apps to solve problems and increase growth across industries.

"The development and deployment of 5G is going to enable business impact at a level few technologies ever have, providing wireless at the speed and latency needed for complex solutions like driverless vehicles," Michael Haines, community chair and director of partner incentive strategy and program design for Microsoft, said in the release. "Additionally, once fully deployed geographically, 5G will help emerging markets realize the same 'speed of business' as their mature counterparts. Solution providers that develop 5G-based solutions for specific industry applications will have profitable, early-mover advantages."

### 6) Serverless computing

Serverless computing allows organizations to create a NoOps IT environment that is automated and abstracted from underlying infrastructure, reducing operational costs and allowing businesses to invest in developing new capabilities that add more value, the report found.

Serverless computing was new on the list this year, along with robotics, replaced quantum computing, and automation, CompTIA noted.

### 7) Blockchain

More organizations are exploring and implementing blockchain to solve the increased need to secure and manage transactions across the internet.

"Blockchain came down crushing from its peak of hype cycle, and that's probably for the best," said Julia Moiseeva, a member of the community's leadership group and founder of CLaaS (C-Level as a Service) Management Solutions Ltd, in the release. "Now that the luster of novelty and furor of the masses are gone, the dynamic of work around blockchain took a complete U-turn, again, for the best."

### 8) Virtual reality (VR)/Augmented reality (AR)

Virtual Reality (VR) immerses the user in an environment while Augment Reality (AR) enhances their environment. Although VR has primarily been used for gaming thus far, it has also been used for training, as with VirtualShip, a simulation software used to train U.S. Navy, Army and Coast Guard ship captains. The popular Pokemon Go is an example of AR.

Using <u>VR</u>, <u>AR</u>, mixed reality, AI, and sensor technologies can help organizations improve operational efficiency and individual productivity, according to the reports.

### 9) Edge Computing

Formerly a technology trend to watch, cloud computing has become mainstream, with major players AWS (Amazon Web Services), Microsoft Azure and Google Cloud dominating the market. The adoption of cloud computing is still growing, as more and more businesses migrate to a cloud solution. But it's no longer the emerging technology. Edge is. Move over, cloud computing, and make way for the edge.

As the quantity of data we're dealing with continues to increase, we've realized the shortcomings of cloud computing in some situations. Edge computing is designed to help solve some of those problems as a way to bypass the latency caused by cloud computing and getting data to a data center for processing. It can exist "on the edge," if you will, closer to where computing needs to happen. For this reason, edge computing can be used to process time-sensitive data in remote locations with limited or no connectivity to a centralized location. In those situations, edge computing can act like mini datacenters. Edge computing will increase as use the Internet of Things (IoT) devices increases. By 2022, the global edge computing market is expected to reach \$6.72 billion.

### 10) Drones

A drone, in technological terms, is an unmanned aircraft. Drones are more formally known as unmanned aerial vehicles (UAVs) or unmanned aircraft systems (UASes). Essentially, a drone is a flying robot that can be remotely controlled or fly autonomously through software-controlled flight plans in their embedded systems, working in conjunction with onboard sensors and GPS. Drones enable robotic automation with fewer geographical restrictions, the report noted. Opportunities for development and integration are high for this market, it added.

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