At the outset, I would like to express a big congratulation to the Computer Engineering department, specially the Newsletter Committee Members for their dedicated efforts in bringing out the first edition of Newsletter for this academic year. I am happy to note that various initiatives are taken by the departmental faculty to disseminate knowledge by organizing expert lecture, training programs, seminars and workshops etc. Newsletter is an amalgamation of all the events held in the department and it plays a crucial role in providing a greater exposure of the achievements accomplished by the students and the faculty in curricular, co-curricular and extra-curricular activities.

“The way to get started is to quit talking and begin doing”

With warm wishes….

Dr. Sanjay H. Dabhole
Principal,, SGMRP, Mahagaon
Aiming at nurturing the demand of industry for high quality technical education for computer engineering the institute started in year 2008 with intake 60. Department has state – of – art laboratories to impact quality education. A team of young and highly qualified faculty members strive for excellence and providing quality education to the students.

The students are molded with multidimensional skill sets covering all the required graduate attributes. More focus is emphasized on the practical learning, projects and research. Department registered for NBA Accreditation

Mrs. R. S. Patil  
Vice- Principal,HOD Computer Engg. Dept.

Vision:

To mould the students into capable engineers with aptitude for research and leadership to contribute effectively in contemporary technology development at global level with focus on rural community.

Mission:

- Inculcating best engineering skills, professional ethics and practices.  
- Providing strong foundations by adopting effective teaching learning methods. 
- To inculcate best laboratory skills by promoting in house development activities.  
- Developing leadership qualities, effective soft skills, critical thinking and attitude of lifelong learning by organizing student centric activities.
Vision:

Produce best quality professionals by imparting hands on experience and value based education to meet the aspirations of software community.

Mission:

- Provide sound technical foundation in Computer Engineering through comprehensive curriculum with rich skills set and practical experience.
- To provide Strong communication skills to function effectively as a part of team and enable the students to sense societal and ethical responsibilities in all professional fields.
- To enable students to become valuable and creative contributors to continue their education to grow professionally along with the spirit of moral values.

PEO (Program Educational Objectives):

- **Breadth of knowledge:** Produce computer engineers with ability to apply the knowledge, software skills to develop software solutions for real life problems.
- **Professionalism:** Produce professionals with ethical attitude, effective communication skills and multidisciplinary approach to cope up with employers and societal demands.
- **Analytical reasoning:** Inculcate analytical reasoning and critical thinking through effective teaching learning and hands on training to develop innovative spirit and entrepreneurial attitude.
- **Lifelong learning:** Motivating students to develop an ability to pursue higher studies research relevant to their discipline for career growth and create enthusiasm for lifelong learning.

PSO (Program Specific Outcomes):

**PSO1: Foundation of Computer System:** Ability to understand the principles and working of computer systems and students can assess the hardware and software aspects of computer systems

**PSO2: Foundations of Software development:** Ability to understand the structure and development methodologies of software systems. Possess professional skills and knowledge of software design process. Familiarity and practical competence with a broad range of programming language and open source platforms.
Our Toppers—A. Y. 2017-18
CLASS-Third Year

<table>
<thead>
<tr>
<th>Rank</th>
<th>NAME OF STUDENT</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LONDHE DHANSHREE CHINTAMANI</td>
<td>86.09%</td>
</tr>
<tr>
<td>2</td>
<td>PATIL MRUNALI GANPATI</td>
<td>85.87%</td>
</tr>
<tr>
<td>3</td>
<td>PATIL KAVITA MAHDEV</td>
<td>81.79%</td>
</tr>
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CLASS-Second Year

<table>
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<th>NAME OF STUDENT</th>
<th>PERCENTAGE</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>YADAV SUJATA SANJAY</td>
<td>85.84%</td>
</tr>
<tr>
<td>2</td>
<td>PATIL RAJANI DAYANAND</td>
<td>81.46%</td>
</tr>
<tr>
<td>3</td>
<td>NAREWADAKAR SUJATA SANJAY</td>
<td>79.49%</td>
</tr>
</tbody>
</table>

CLASS-First Year

<table>
<thead>
<tr>
<th>Rank</th>
<th>NAME OF STUDENT</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NEHA NARASU PATIL</td>
<td>73.31%</td>
</tr>
<tr>
<td>2</td>
<td>NAUKUDKAR REVATI SHIVAJI</td>
<td>73.12%</td>
</tr>
<tr>
<td>3</td>
<td>PATIL SUKANYA PANDURANG</td>
<td>72.87%</td>
</tr>
</tbody>
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ANNUAL SPORTS -

- In annual sports our department girls Miss. Muskan Gavasekar and Miss. Dhanashree Shinde secured runner up in Carom.
- Mr. Shivam Ardalkar, Niraj patil, Avdhoot Kulkarni secured runner up in Chess.

Our second year students Aditya Nagvekar, Shoheb Nadadgalli, Suraj Desai won 1st Prize in Pub-G gaming event held in ICRE, Gargoti
Artificial Intelligence

Artificial intelligence is a technology that is already impacting how users interact with, and are affected by the Internet. In the near future, its impact is likely to only continue to grow. AI has the potential to vastly change the way that humans interact, not only with the digital world, but also with each other, through their work and through other socioeconomic institutions – for better or for worse.

Artificial intelligence was founded as an academic discipline in 1956, and in the years since has experienced several waves of optimism, followed by disappointment and the loss of funding (known as an "AI winter") followed by new approaches, success and renewed funding. For most of its history, AI research has been divided into subfields that often fail to communicate with each other. These sub-fields are based on technical considerations, such as particular goals (e.g. "robotics" or "machine learning"), the use of particular tools ("logic" based on social factors (particular institutions or the work of particular researchers), or artificial neural networks), or deep philosophical differences. Subfields have also been

High-profile examples of AI include autonomous vehicles (such as drones and self-driving cars), medical diagnosis, creating art (such as poetry), proving mathematical theorems, playing games (such as Chess or Go), search engines (such as Google search), online assistants (such as Siri), image recognition in photographs, spam filtering, predicting flight delays, prediction of judicial decisions and targeting online advertisements.

AI is growing rapidly—and shows no sign of slowing down. It has the power to greatly alter military operational style, identify billions of people (this has already begun in China), and affect security. Russian President Vladimir Putin has even said that the nation that leads in AI “will become the ruler of the world.”

By:- Sadhana Naik. & Vidya Kamble (TYCO)
ROBOTIC SURGERY

Robotic surgery is a type of minimally invasive surgery. “Minimally invasive” means that instead of operating on patients through large incisions, we use miniaturized surgical instruments that fit through a series of quarter-inch incisions. When performing surgery with the da Vinci Si—the world’s most advanced surgical robot—these miniaturized instruments are mounted on three separate robotic arms, allowing the surgeon maximum range of motion and precision. The da Vinci’s fourth arm contains a magnified high-definition 3-D camera that guides the surgeon during the procedure.

Robotic surgery is a new and exciting emerging technology that is taking the surgical profession by storm. Up to this point, however, the race to acquire and incorporate this emerging technology has primarily been driven by the market. In addition, surgical robots have become the entry fee for centers wanting to be known for excellence in minimally invasive surgery despite the current lack of practical applications. Therefore, robotic devices seem to have more of a marketing role than a practical role. Whether or not robotic devices will grow into a more practical role remains to be seen.

Our goal in writing this review is to provide an objective evaluation of this technology and to touch on some of the subjects that manufacturers of robots do not readily disclose.

By:-Sheetal Jadhav & Jyoti Jadhav.(TYCO)
5G Wireless Technologies

Radio technologies have evidenced a rapid and multidirectional evolution with the launch of the analogue cellular systems in 1980s. Thereafter, digital wireless communication systems are consistently on a mission to fulfil the growing need of human beings (1G … 4G or now 5G).

So, this article describes the 5G technology emphasizing on its salient features, technological design (architecture), advantages, shortcomings, challenges, and future scope.

5th Generation Mobile Network or simply 5G is the forthcoming revolution of mobile technology. The features and its usability are much beyond the expectation of a normal human being. With its ultra-high speed, it is potential enough to change the meaning of cell phone usability.

The 5G specification allows LAA (License Assisted Access) as well but it has not yet been demonstrated. Adding LAA to an existing 4G configuration can add hundreds of megabits per second to the speed, but this is an extension of 4G, not a new part of the 5G standard.

As a conclusion, we’re probably going to have to be a bit more patient before experiencing true mobile 5G speeds. One of the next major steps, except for the carriers further developments, will, of course, be the introduction of 5G phones, which Qualcomm predicts won’t happen until 2019.

By:- Prajakta Kadalgekar & Sujata Yadav (TYCO).
product allows you to connect multiple USB 2.0 devices to your computer, while taking up minimal desk space. Perfect for notebook users or those with confined workspaces, this product delivers the performance you expect from USB 2.0 while maintaining backward compatibility with the USB 1.1 standard, so your existing devices still function flawlessly.

Integrated Soldier Power / Data Hubs are Personal Area Network (PAN) hub and interconnect systems providing network data access, peripheral connectivity and smart battery power management for dismounted soldier C4ISR electronics in Digitally Aided Close Air Support (DACAS) missions, including precision targeting, tactical radio communications, real-time video downlink, night vision technologies, GPS/navigation, blue force tracking, personal computing and smart phone integration.

The extreme proliferation of USB has even led to the adoption of the technology as a high-bandwidth embedded chip-to-chip interface. Microchip enables seamless USB connectivity by delivering integrated value rich solutions such as USB smart hub controllers, USB-C™ power delivery and charging transceivers/switches, flash media controllers and security solutions, all with the most extensive and proven interoperability, USB3X13/USB46X4/USB5XXX Families

By:- Ashwini Arabhavi & Ekta Patil (TYCO)
4G Technology

Mobile Communication has been developed rapidly since last few decades. The growth of the wireless broadband technologies in the modern years was the answer of increasing demand for mobile Internet and wireless multimedia application such as live TV, live Movies, video conferencing etc. Mobile communication plays a vital role in telecommunication industry. During a common wide area radio access technology and supple network architecture WiMAX and LTE has facilitate convergence of mobile and fixed broadband network. Since 2007, the IEEE 802.16 working group has been developing a new improvement if the IEEE 802.16 standards as a higher level air interface to meet the requirement of ITU-R/IMT-advanced for 4G system as well as for the next generation. In 4G mobile technology, assures the high mobility with high level speed of data rates and high capacity IP based services and application. This paper describes the 4G wireless system, its architecture, security services, benefits and challenges of 4G wireless technology.

The 4G will be a fully IP-based integrated system of systems and network of networks achieved after the convergence of wired and wireless networks as well as computer, consumer electronics, communication technology, and several other convergences that will be capable of providing 100 Mbit/s and 1 Gbit/s, respectively, in outdoor and indoor environments with end-to-end QoS and high security, offering any kind of services anytime, anywhere, at affordable cost and one billing. **4G** is the fourth generation of broadband cellular network **technology**, succeeding 3G. ... Potential and current applications include amended mobile web access, IP telephony, gaming services, high-definition mobile TV, video conferencing, and 3D television.

Name:-Rohini Kadam & Harshata Choudaj.(TYCO)
Department of Computer Engg has arranged college level technical events like Technical Quiz, Paper Presentation under the banner of “Techno-Utsav”. 88 students registered for quiz and 16 students registered for paper Presentation on 5th Feb 2019

Winner of Paper Presentation-
Mr. Shivam Ardalkar & Mr. Omkar Mujumdar

Winner of Technical Quiz-
Mr. Amar Patil & Mr. Sarthak Khapale.
Industry Expert Lecture
- Expert Lecture on “Role of Diploma Engineer in an industry” by Mr. Samadhan Kore.
- Expert Lecture on “PHP and MYSQL” by Mr. Satish Pise (Think Big Solutions, Kolhapur)
- Expert lecture on “Future Trends In networking” by Mr. M.R.Patil. (Domain Computers Pvt.Ltd)

Guest Lecture on Personality Development
- Guest Lecture on “Campus Placement Preparation” by Bhakti Bhadra (TPO, Ciber, Kolhapur)
- Guest Lecture on Personality Development by Mr. Amit Kulkarni
- Lecture on Soft skill by Mr. Brijesh Talwadkar
- Lecture on “Communication Skills” by Mrs. R.M. Parit
Visits

- Industry visit organized at “Ajara Soot Girani, Ajara” for third year students.
- Industry visit at “Amicus Agrotech Gadhinlag” for second year and third year students.

Industrial Visits..
- Organized blood donation camp and HB checking for students and faculties
- Organized Clean India Campaign
- Continuous Education Program on “Operating System and Internet” is Organized at Jaybharat School, Mahagaon.
National Level Technical Symposium Annutara 2K18

Organized National level competition on Quiz Competition and LAN Gaming.
“Shiv Rajyabhishek”.

Department of computer engineering enthusiastically participated in traditional day with well known theme of “Shiv Rajyabhishek”.
Fiesta-2019

Students of Computer engg. Dept. have actively participated in cultural event of college. They performed in various activities like dancing, fashion show and more.

Also arranged departmental Fashion Show for girls.
About the Newsletter

SGMRP’s, Department of Computer Engineering is proud to publish its NEWSLETTER 2018-19(Volunteer-3 Issue-I).

The objectives of this Newsletter is to keep our Students, Parents, Faculty and Industry informed about the activities happening in the Department. Through this half yearly publication, we hope to engage our various stakeholders in building the network among themselves. We hope you enjoy it!

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⇒ Article by students
⇒ Training/Workshop
⇒ Industry Expert Lectures
⇒ Industry Visits
⇒ Social Activity

Editorial Board…

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⇒ Mr. R. B. More.
⇒ Mr. M. K. Hasabe.
⇒ Mrs. K. G. Kurale.
⇒ Mr. G. K. Birangaddi.
⇒ Mr. V. S. Redekar.