

PUBLICATIONS

- “Developing A Secure Cloud Storage System for Storing IoT Data by Applying Role Based Encryption”, Mr. Bhise A.S. Twelfth International Multi-Conference on Information Processing-2016 (IMCIP-2016) ELSEVIER, Procedia Computer Science 89 (2016) 43 – 50 .

CONFERENCE ATTENDED

Faculty Names	Presented Paper	
Ms. Muttagi V. R., Mrs. Bhosale S. S.	Optimization of Process Parameters for Shutter Type Vertical Axis Wind Turbine	Techno Socital in SVERI COE, Pandharpur Dec 2016
Mr. Bandgar V.V., Ms. G. A. Fattepurkar	Bionics: Hope for disabled	
Mr. Bhise A.S.	A Review on Big Data Concepts and various Analytic Techniques	
Ms. Mane V.D.	Highly Confidential Security System	
Mr. Bhise A.S. , Mr. Kawale S.M.	Role based Encryption System for Secure Cloud Storage	

UPCOMING EVENTS

In this semester we are planning for our annual student event COMPIT

In COMPIT students are going to organize various events like Programming Contest, Blind C, Quiz contest, Poster Presentation, Video Presentation and LAN Gaming. Winner will awarded with Prize and certificates. Last year 250 students were participated in this events. Through this we got success in front of motivating our student to participated in competitive events, not only for our institute but also national as well as international competitions.

Industrial visit for 2nd and 3rd year students

We are planning industrial visits for our students to Diniti Pvt. Ltd. Satara, Ideaz Multimedia Pvt. Ltd. Kolhapur and Dalvik apps Mumbai.

Expert Lecture

We plan expert lecture over the syllabus which conducted by industry experts for students.

Student Development

Department conducted short term professional courses in that we take 10 to 15 days workshop for student. Last vacation we conducted workshop for VB.Net and C program-

Department of Information Technology

EDITORIAL

It gives us great pleasure to present the Forth issue of our departmental newsletter “TANTRA”, which gives us the opportunity to focus the achievements in our department and new trends in Information and Technology field.

We are thankful to all the students and faculties who have contributed during the preparation of this newsletter. We have tried our best and given positive efforts, expecting creative responses from everyone to continue the flow of knowledge through this newsletter.

Mr. S. M. Kawale
Student Co-ordinator
Mr. M. S. Deshpande (TYIF)



TANTRA

Technology Awareness & Knowledge to Rising Associ-

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About Department

Information Technology Department has been started in 2008, with intake of 60. Our department has 06 well-equipped laboratories. We have established the association “COMPIT” with the department of Computer Engineering in which we conduct various activities like Quiz competition, Power point presentation, Blind C, Poster presentation, LAN gaming etc. The departments have organized various expert lectures and workshops for the overall development of students. This type of activities used to get better result in academic and overall development of students. In last semester we have arranged various workshop for students through which students were able to develop there own projects.

SMART CITY VIDEO SURVEILLANCE

Automated road traffic management systems, surveillance systems and storage for the vast amount of data being generated will make up a core part of the future smart city infrastructure. Much of this information is sensitive, so the storage technology used needs to be the best available.

Understand how strong work and how end users can access it is now the focus for storage companies as they look to facilitate the adoption of cloud-based data centers.



As smart cities grow, video surveillance is a set to become a key target for storage companies over the next few years and as the cost of network video surveillance cameras drops to less than current cost. As a result, for most difficult task for storage companies is ensuring the cost of storing a Gbyte of data falls in-line with this while maintaining high standard of performance, compliance and security over those data management and storage systems.

There is an accelerated demand for security cameras in cities around the world and, according to a recent IHS report; the global market for video surveillance will grow by 7% in 2016 with some 66 million network cameras shipped globally, of which 28 million will have high definition capabilities. This proliferation of security cameras is set to see one camera

deployed for every 14 people in London and body-worn cameras being used in Beijing as part of its Metro project. Overall, the video surveillance industry is set to grow at a Compound Annual Growth Rate (CAGR) of 10% to \$24.2 billion by 2019.

Dnyaneshwar Bidkar (SYIF)

WISHING YOU

**A
VERY HAPPY
68TH
REPUBLICAN DAY**

Message of HOD

It is our pleasure to present sixth News Letter “TANTRA” of our department to all students. This News Letter is the one of the ways in which we can disseminate the information about department. It covers various technological articles, departmental activities, achievements of students and staff members.

Mr. Bhise A. S.

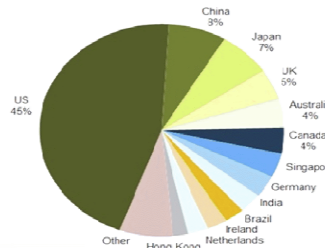
HYPERSCALERS

The term 'hyperscale' refers not just to the size of a data center, but also its network architecture and the approach to hardware. Hyperscale data centers like open source tools, treat their servers like cattle, not pets, and enjoy a high degree of software automation.

Only a handful of global digital businesses are capable of building such facilities. They include the likes of AWS, Microsoft, Yahoo, Twitter, Baidu and Oracle.

In its research, Synergy looked at 24 of the world's largest cloud and Internet service firms. Most of them are American, so it will come as no surprise that the US leads the world in the number of hyperscale data centers, with 135 facilities. It is followed by China and Japan with 24 and 21 hyperscale data centers respectively. The top five is rounded out by the UK with 15 facilities and Australia

Hyperscale Data Center Operators
Data Center Locations by Country - December 2016



with 12.

"Hyperscale growth goes on unabated and we are forecasting that hyperscale operators will pass the 400 data center mark by the end of 2018," said John Dinsdale, a chief analyst and research director at Synergy Research Group.

"What is remarkable is that the US still accounts for nearly half of all hyperscale data centers, reflecting the US dominance of cloud and internet technologies. While other countries are now featuring more prominently due to either their scale or the unique characteristics of their local markets, the major players continue to invest heavily in US data center operations."

By Mr. Sanket Deshpande (SYIF)

WiGig

Could it be the future of Wireless ?

The Wireless Gigabit Alliance (WiGig) and IEEE 802.11ad are developing a multigigabit wireless personal and local area network (WPAN/WLAN) specification in the 60 GHz millimeter wave band. Chipset manufacturers, original equipment manufacturers (OEMs), and telecom companies are also assisting in this development. 60 GHz millimeter wave transmission will scale the speed of WLANs and WPANs to 6.75 Gbit/s over distances less than 10 meters. This technology is the first of its kind and will eliminate the need for cable around personal computers, docking stations, and other consumer electronic devices. High-definition multimedia interface (HDMI), display port, USB 3.0, and peripheral component interconnect express (PCIe) 3.0 cables will all be eliminated. Fast downloads and uploads, wireless sync, and multi-gigabit-per-second WLANs will be possible over shorter distances. 60 GHz millimeter wave supports fast session transfer (FST) protocol, which makes it backward compatible with 5 GHz or 2.4 GHz WLAN so that end users experience the same range as in today's WLANs.

There is a huge amount of unlicensed spectrum available worldwide in the 60 GHz band. Academia and industry have turned to the 60 GHz spectrum because of the universal availability of unlicensed spectrum, the ever-growing number of user applications creating heavy data traffic, and the need to reduce data transfer times. Considerable efforts have been made to use this spectrum and spur the development of silicon, similar to what happened with the 2.4 GHz ISM band 15 years ago. 60 GHz millimeter wave technologies offers a way to provide end users with guaranteed quality of service (QoS) for different applications.

IEEE 802.11ad standard aims to develop the protocol adaptation layers (PALs) to support a plethora of applications that will arise from the elimina-

tion of cables and from fast wireless sync and transfer. The PALs being considered by WiGig include wireless serial extension (WSE), which eliminates USB 3.0 cables; wireless bus extension (WBE), which eliminates PCIe 3.0 cables; wireless display extension (WDE), which eliminates high-definition multimedia interface (HDMI) and display port cables; and wireless secure digital (WSD), which makes secure digital input/output card (SDIO) disks wireless. The first important 60 GHz millimeter wave application to enter the market as wireless docking based on PCIe 3.0 with one second-generation lane (also called x2) or USB 3.0.

All devices with 802.11ad MAC/PHY/Radio use the corresponding PALs between the application and MAC layers to seamlessly transfer information between devices as if the devices were connected by wires. Another 60 GHz application is wireless



HDMI based on WDE, which allows transfer of uncompressed bits from devices such as set top boxes and blue ray disc players to television screens and from laptops, desktops, or ultra books to monitors via a display port cable replacement. The WDE also supports H264 compressed rates for handling variations in the wireless channel and to ensure seamless content delivery to the end users.

All means 802.11ad are standardizing 60 GHz technology to facilitate multi-gigabit-per-second communications over shorter distances. This standard has many new features to improve and sustain high-speed communications with TDMA single-carrier and OFDM schemes. They allow for scheduled and contention-based access, beamforming, and power-save mechanisms that decrease power consumption and increase throughput

By Mr. Bandagar V. V.

DEPARTMENTAL RESULT FOR A.Y. 2016-17

SR. No.	NAME OF STUDENT	MARKS %	CLASS
1	MS. PATIL UJJWALA UTTAM	91.54 %	1st Year
2	MS. UPLAP SAKSHI RAHUL	87.81 %	1st Year
3	MR. GAIKWAD PANKAJ SANJAY	87.08 %	1st Year
1	MS. TAUR SAYALI SHUKRACHARYA	94.12 %	2nd Year
2	MS. DESHMUKH SAMRUDHI SANJAYRAO	89.06 %	2nd Year
3	MR. BIDKAR DNYANESHWAR B	81.81 %	2nd Year
1	MS. GAIKWAD POOJA BALASAHEB	86.88 %	3rd Year
2	MS. VIBHUTE POOJA HIMMAT	83.00 %	3rd Year
3	MS. MISAL SHWETA LAXMAN	82.83 %	3rd Year

FACULTY

ME Completed:

Mr. V. V. Bandgar

Ms. G. A. Fattepurkar

ME Appeared:

Mr. A. S. Bhise

Mr. S. D. Telkar

STUDENT WITH MORE THAN 90 MARKS FOR A.Y. 2016-17

SR. No.	NAME OF STUDENT	MARKS	SUBJECT	CLASS
1	MS. PATIL UJJWALA UTTAM	100	BASIC SCIENCE	1st Year
2	MS. SHAIKH SUMERABEGAM SHAMSUDDIN	95	BASIC SCIENCE	1st Year
3	MS. BHOSALE SHUBANGI DATTATRAY	95	BASIC SCIENCE	1st Year
4	MR. GAIKWAD PANKAJ SANJAY	94	BASIC SCIENCE	1st Year
5	MS. PANCHAWADKAR PADMAJA SANJAY	90	BASIC SCIENCE	1st Year
6	MS. UPLAP SAKSHI RAHUL	90	BASIC SCIENCE	1st Year
7	MS. PATIL UJJWALA UTTAM	90	BASIC MATHEMATICS	1st Year
8	MS. UPLAP SAKSHI RAHUL	90	ENGLISH	1st Year
9	MR. BHOSALE SHRIKANT BRAMHADEV	100	APPLIED MATHMATICS	2nd Year
10	MS. TAUR SAYALI SHUKRACHARYA	90	APPLIED MATHMATICS	2nd Year
11	MS. TAUR SAYALI SHUKRACHARYA	100	DATA STRUCTURE	2nd Year
12	MS. DESHMUKH SAMRUDHI SANJAYRAO	91	DATA STRUCTURE	2nd Year
13	MS. GHADAGE ANITA DATTATRAY	90	DATA STRUCTURE	2nd Year
14	MS. TAUR SAYALI SHUKRACHARYA	96	RELATIONAL DATABASE MANAGEMENT SYSTEMS	2nd Year
15	MS. DESHMUKH SAMRUDHI SANJAYRAO	92	RELATIONAL DATABASE MANAGEMENT SYSTEMS	2nd Year
16	MS. VIBHUTE POOJA HIMMAT	90	OPERATING SYSTEM	3rd Year
17	MS. VIBHUTE POOJA HIMMAT	97	JAVA PROGRAMMING	3rd Year
18	MS. KOLI SAMRUDHI SUNIL	97	JAVA PROGRAMMING	3rd Year
19	MR. DESHPANDE SANKET SANJAY	96	JAVA PROGRAMMING	3rd Year
20	MS. GAIKWAD POOJA BALASAHEB	95	JAVA PROGRAMMING	3rd Year
21	MS. SALUNKHE JYOTSNA RAJENDRA	91	JAVA PROGRAMMING	3rd Year