



Lyallpur Khalsa College of Engineering
Cantt Road, Defense Colony Jalandhar

CSE Newsletter

Vol.1 Issue No.1 | December 2019

Published by

**Department of Computer Science
and Engineering**

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HIGHLIGHTS

Student Achievements	5
MoU with Netsmartz	7
CSE in News	8
Articles by Students	13
Articles by Alumni	15
Faculty Achievements	19



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About LKCE

The Lyallpur Khalsa College of Engineering got established in 2013 under the aegis of Khalsa College Lyallpur Education Charitable Trust. The Institute is located in the heart of city on a prime piece of land. It was established with an aim to impart engineering education to the students to make them competent, motivated engineers and scientists. The institute as a first step will provide the education in the field of Mechanical Engineering, Civil Engineering, Electronics & Communication Engineering and Computer Science & Engineering disciplines, the most sought after disciplines at present due to the huge potential for the industry absorbing the good students in these fields and very rapid investments taking place in the region.

The Institute not only celebrates freedom of thought, cultivates vision and encourages growth, but also inculcates human values and concern for the environment and the society.

VISION

To contribute to the region & the country at large through innovative excellence in experimental based scientific and technical education with a focus on research so as to be a valuable resource for the corporate world and the humankind and to become a source of pride of all countrymen.

MISSION

To impart quality education and training and to carry out research in consonance with the vision of the Institute, by providing state-of-the-art infrastructure and a learner friendly atmosphere in synergy with innovative pedagogy and global networking; to produce world class and socially responsive academicians, leaders and practitioners in various disciplines.

About Department of CSE

Computer Science and Engineering is the most sought after stream and offers students an opportunity to become thorough professionals in Computer Science & Engineering. The Department is committed to create a culture that encourages technological innovation and exploration of the latest advances in the rapidly changing field of Computer Science. Computer Engineers are involved in many hardware and software aspects of computing, from the design of individual microprocessors, personal computers and supercomputers to circuit design.ng Technologies. The Department provides exposure to emerging technologies as well as futuristic technologies like Cloud computing and High Performance Computing.

Vision: To groom students into competent engineers and entrepreneurs, by inculcating technical education, ethical and moral values through measurable and continuous improvement methods.

Mission:

- To make students industry ready by grooming their employability skills through academia and corporate collaboration
- To blend theoretical knowledge with practical applications through trainings, peer learning and sound academic practices.
- Cultivate leadership skills, social awareness and responsibility among the students through various co-curriculum and extra curriculum activities.
- To encourage faculty involvement in pursuing academic excellences through FDP, STC and Conferences.



It is with great pleasure and humility that we look forward to serving each one of you while presenting the first issue of CSE Newsletter for our readers. I invite you to learn more about the dynamic and stimulating learning environment at LKCE. Through this platform, I take the opportunity to share that our CSE department aims to prepare the young engineers by imparting high quality technical education coupled with appropriate training and wide exposure in form of MOUs, linkages, industry oriented programmes, workshops, etc. Stepping into the portals of our Institutions one can find the unrelenting efforts made by the faculty, staff and students for taking the department another step ahead.

Success story of any organization is the outcome of the collaborative and committed efforts made by its dedicated workforce. Continuing with the tradition, this issue of CSE has thrown immense light on commendable contribution made by all members of CSE family.

S. Sukhbir Singh Chatha
Director, Academic Affairs
KCL Group of Institutions

It is a moment of immense pleasure to extend heartfelt greetings to the readers of the maiden issue of our CSE Newsletter. The newsletter is an initiative that mirrors the life of the CSE department phase by phase. We are committed to creating an ambience for nurturing innovation, excellence, and creativity in our students. We believe that the newsletter will serve as a window through which the complete and well knit view of our department's journey and milestones achieved by it can be viewed. Through further issue of CSE life at LKCE, we do expect that we will keep on updating our readers and students in the best possible manner. Your opinions and encouragement will be highly appreciated by the editors of the Newsletter.



Dr. R.S. DEOL
Dy. Director, AA
KCL Group of Institutions



It is a matter of great pride and satisfaction for Lyallpur Khalsa college of Engineering, Jalandhar to bring out the Department's News Letter' Released from the Department of computer science. The College has made tremendous progress in all areas-academic, non-academics, capacity building relevant to staff and students. Now we are in the process of preparation for accreditation of NBA (National Board of Accreditation). I am confident that this Department News Letter will send a positive vibes to the staff, students and the person who are interested in the Technical Education and Technology based activities. A News Letter is like a mirror which reflects the crystal picture of all sorts of activities undertaken by a

Department and develops writing skills among students in particular and teaching faculty in general. I congratulate the Editorial Board of this News Letter who have played wonderful role in accomplishing the task in Record time. I express my deep sense of gratitude to Dr. Pooja HOD, under her guidance this Technical work has been undertaken and completed within the stipulated time. Also my heartfelt Congratulations to staff members and Students for their fruitful effort.

With Best Wishes

Dr. D. S. Rao
Director, LKCE



Students of B.Tech(CSE) have
Successfully Completed Online STC
through **NPTEL** from IIT Kharagpur.

NAME OF STUDENTS

1. Muskan
2. Pranjal
3. Richu
4. Aishlee
5. Jatin

Mentor : **Er. Vikram Dhiman**
Exam Date : **27-04-2019**

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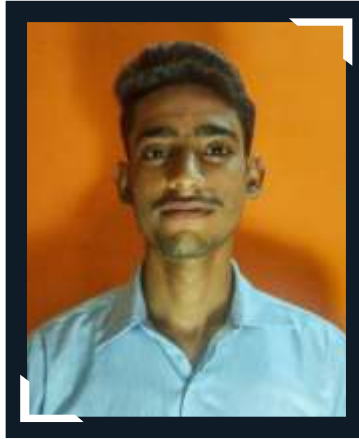
B.Tech. (4 Year Degree)
Computer Science and Engineering
Pathway to Success

International Internships

Three students of CSE, LKCE completed our 60 days internship from 9th June 2019 to 7th August 2019 at Himank Sports Services, Dubai.



Muskan
1817985



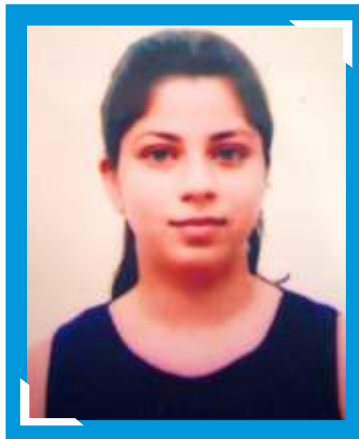
Jatin
1817971



Richu
1817998

Campus Placement

Smart Data Enterprises conducted a joint Campus Drive on 28-Aug-2019 for the students of Engineering, IT and Management. A Salary Package of Rs. 3.5 Lakhs per Annum was offered to the students. The students were short-listed on the basis of Online Test and Interview Round.



Congratulations

Muskan Gulati (B.Tech.CSE) for Selected in Smart Data Enterprises

Academic Merit Holders



Lovish
B.Tech. CSE 4th Sem



Taranpreet Kaur
B.Tech. CSE 4th Sem



Ranjna
B.Tech. CSE 4th Sem



Rosy
B.Tech. CSE 4th Sem



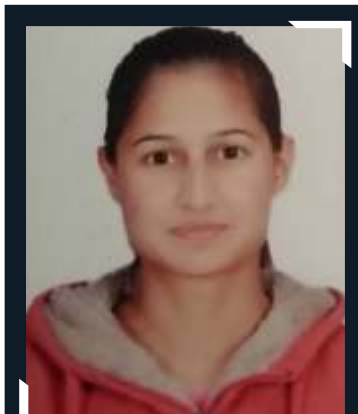
Mamta
B.Tech. CSE 4th Sem



Shabnam
B.Tech. CSE 4th Sem



Ruby Kala
B.Tech. CSE 6th Sem



Reetika Chauhan
B.Tech. CSE 6th Sem



Muskaan
B.Tech. CSE 6th Sem

Department of CSE Signs MoU with Netsmartz, Mohali



CSE Dept. of LKCE, Jalandhar took an initiative to sign an MoU With Netsmartz, (Mohali) for students to attain knowledge on Big Data along with practical aspects. In the inaugural ceremony of the same Mr. Parsanjit Jha from Netsmartz, (Mohali) presented the lecture on “BIG DATA” to the students.

IEEE Students Branch Established

S no.	Designation	Name	Branch/ Semester
1.	Leader	Jatin	CSE/ 3 rd
2.	President	Rohit Singh	CSE/ 5 th
3.	Co-President, Media coordinator	Komal Chanoriya	CSE/ 3 rd
4.	Finance coordinator, Stage handling	Richu Mehta	CSE/ 3 rd
5.	Media coordinator	Gursimran	CSE/ 5 th
6.	Website administrator	Shivam Sharma	CSE/ 3 rd
7.	Stage handling	Rosy Mehta	CSE/ 5 th
8.	Stage handling	Shatakshi Verma	CSE/ 5 th
9.	Member	Reetika Chauhan	CSE/ 7 th
10.	Member	Gurlaganjit Kaur	CSE/ 7 th
11.	Member	Monika Gamroorh	CSE/ 7 th
12.	Member	Muskan Gulati	CSE/ 7 th
13.	Member	Uday Singh	CSE/ 7 th
14.	Member	Amanpreet Kaur	CSE/ 7 th



Picture: Member of IEEE Students Branch with worthy Director (LKCE), HoD (CSE) and Faculty Members

To Establish the IEEE Student branch was initiated in Feb 2019 by CSE Department under the guidance of Dr. Pooja Dhand, HOD CSE, and patronage of Dr. D.S. Rao, Director LKCE and Dr. R.S. Deol, Deputy Director LKCE. With the efforts of the

LKCE IEEE Students branch is now functional under the mentorship of Er. Vikram Dhiman, Assistant professor CSE. The Students from all the semesters are given due representation in the branch.

Workshop on USE and Importance of Python

June 20, 2019: A workshop on “USE and Importance of Python” was organized on 20/06/2019 in Computer Science Department at Lyallpur Khalsa College of Engineering, Jalandhar. The resource person for the workshop was Ms. Pallavi Bhatti, Dream Tech Labs, Dream Weavers Group Jalandhar.



FDP on NBA Accreditation and its Process

July 20, 2019: With a view of keeping their faculty abreast with the Outcome based Education, a one day FDP was organized in LKCE, Jal. Dr. Akshay Girdhar from IT department of GNDEC, Ludhiana was the resource person of the FDP titled “NBA Accreditation and its Process”.



Webinar on MOOC Courses

August 1, 2019: A Webinar on “Designing Learner Centric MOOCs” was organised by CSE department on 1st Aug 2019. Prof. Sridhar Iyer and Prof. Sahana Murthy from IIT Bombay hosted the webinar on Youtube.



Webinar on Demystifying Networking

August 6, 2019: Department Computer Science and Engineering, Lyallpur Khalsa College of Engineering, Jalandhar organized webinar for NPTEL MOOC course “Demystifying Networking” on 06-08-2019 for the students of B.Tech(CSE)-5thSem and B.Tech(ECE)-7th Sem. Prof. Sridhar Iyer, an eminent researcher and professor from IIT Bombay hosted this lives session on Youtube.



Workshop on Artificial Intelligence

August 22, 2019: The resource person for the workshop was Mr. Aditya Kumar along with Mr. Ashu Khare representative from Ducat Limited Noida, Delhi. He highlighted the importance of Artificial Intelligence along with the practical aspects and simulated environment.



CSE Oroganized Talent Hunt

August 27, 2019: Computer Science & Engineering Department organized Talent Hunt competition for the students pursuing computer science & engineering. The competition was spilled over three domains covering poster making, monograms and working models. The main areas of consideration were the emerging trends in computer engineering like artificial intelligence, internet of things, big data etc. Towards the concluding part, the first prize for poster making and monograms was bagged by Amritpal Kaur, Samriti Vashisht, Sanjeev Kumar, Puneet Kumar and Manish Kumar of CSE 3B and Nitika, Anjali, Richu Mehta, Muskan and Aishlee of CSE 3A respectively.



Short Term Training Program



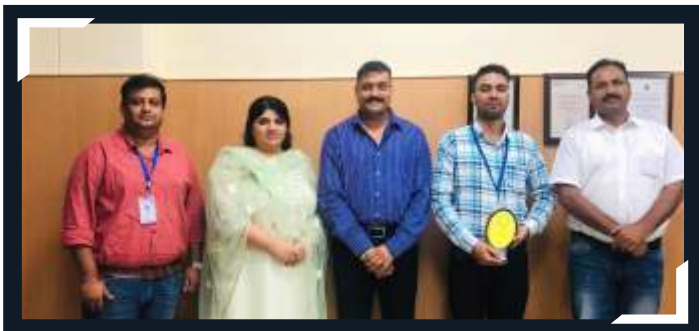
DAY 1

September 25, 2019: Dr. Rachna Seth, Principal Data Scientist, Rio Tinto, Australia gave the expert lecture on “MACHINE LEARNING” and the importance of the machine learning in the real life, followed by an expert lecture on “INTRUSION DETECTION SYSTEM” by Dr. Avtar Singh, Assistant Professor, CSE department, NIT Jalandhar.



DAY 2

September 26, 2019: Students of CSE celebrated Engineers Day to mark respect to Dr. Mokshagundam Visvesvaraya, by organizing technical quiz, debate and blind coding and participated in the competition with full zeal and zest and showcased their remarkable performance.

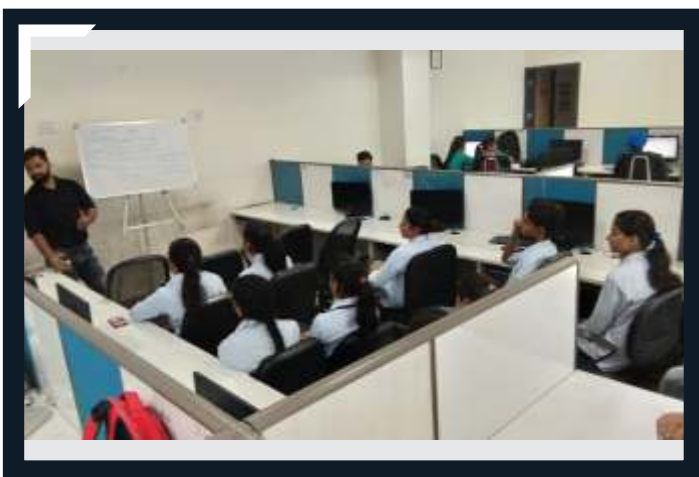


Industrial Visit to Impinge Solutions , Mohali

Department of Computer Science and Engineering organized an industrial visit to Impinge Solutions, Mohali, for the students of B.Tech(CSE)-5th Semester



September 19, 2019: The objective of the industrial visit was to help students gain the knowledge of inner working atmosphere of companies, their working methods, employment practices, practical implementation of theoretical concepts, real time functional environment and the employment opportunities in IT sector.



INTERNET OF THINGS

By Rohit Singh (CSE 5th Sem)



HISTORY OF IOT

The term “Internet of Things” was coined by entrepreneur Kevin Ashton, one of the founders of the Auto-ID Center at MIT. Ashton was part of a team that discovered how to link objects to the internet through an RFID tag. He first used the phrase “Internet of Things” in a 1999 presentation and it has stuck around ever since.

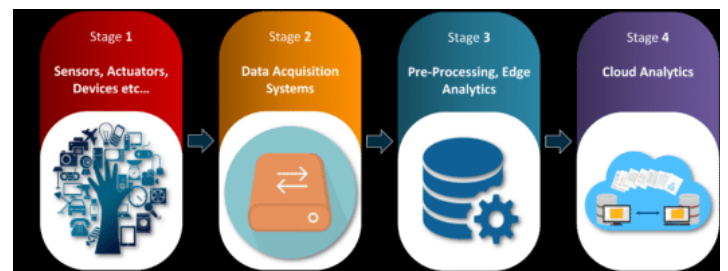
IOT ARCHITECTURE

Internet of Things architecture layers are distinguished in order to track the consistency of the system. This should also be taken into consideration before the IoT architecture process start. Basically, there are three IoT architecture layers:-

1. The client side (IoT Device Layer)
2. Operators on the server side (IoT Gateway Layer)
3. A pathway for connecting clients and operators (IoT Platform Layer)

IOT DEVICES & PRODUCTS

The Internet of Things is transforming every corner of life: the home, the office, city streets and beyond. IoT products give us greater control over door locks, lights and appliances; offer insights into resource consumption habits; streamline business processes; and better connect us to the people, systems and environments that shape our daily lives.



- 1) Google Home Voice Controller.
- 2) Amazon Echo Plus Voice Controller.
- 3) Amazon Dash Button.
- 4) August Doorbell Cam.
- 5) August Smart Lock.
- 6) Kuri Mobile Robot.
- 7) Belkin WeMo Smart Light Switch.
- 8) Footbot Air Quality Monitor.



INTERNET OF THINGS

By Rohit Singh (CSE 5th Sem)

Cont...

IOT DATA AND ARTIFICIAL INTELLIGENCE

IoT devices generate vast amounts of data; that might be information about an engine temperature or whether a door is open or closed or the reading from a smart meter. All this IoT data has to be collected, stored and analysed. One way companies are making the most of this data is to feed it into artificial intelligence (AI) systems which will take that IoT data and use it to make predictions.



For example, Google is an AI in charge of its data center cooling system. The AI uses data pulled from thousands of IoT sensors which is fed into deep neural networks, which predict how different choices will affect future energy consumption. By using machine learning and AI Google has been able to make its data centers more efficient and said the same technology could have uses in other industrial settings.

CONCLUSIONS

From smart speakers to smart homes, smart cities, smart transportation, smart pharmaceuticals, and smart grids, it is not hard to imagine a world where there are chips in just about everything. This paper describes how this proliferation of IoT applications and devices is poised to drive unprecedented levels of demand for memory, processing speed, and bandwidth.

IoT or internet of thing these days we quite often listen to this word.



The words such as the cyber-attack, hacking we can hear these too jointly with IoT. Despite, of the fear of piracy and cyberattack the internet of things and IoT applications will grow much more faster in the coming years. Ultimately we can say the IoT future scope or the future of IoT is very bright. There will a lot of IoT devices which will be coming shortly.

INTERNET OF THINGS

By Aishlee (CSE 3rd Sem)

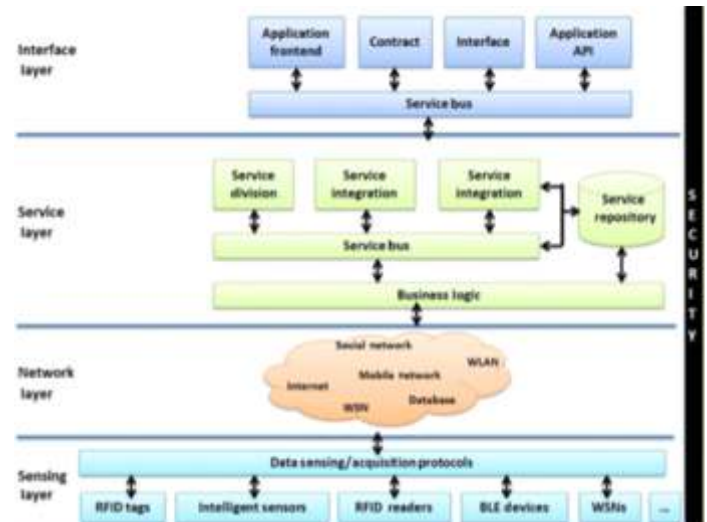
INTERNET OF THINGS (IOT)

The Internet of things (IoT) examines the interconnection of devices within the existing Internet infrastructure. IoT is expected to offer advanced connectivity of devices, systems, and services that goes beyond machine-to-machine communications (M2M) and looks at a variety of protocols, domains, and applications. IoT is based on integrations of various processes such as identifying, sensing, networking, and computation. It enables large-scale of technological innovations and value-added services which personalize users' interaction with various "things". IoT systems are comprised of functional blocks to facilitate various utilities to the system such as sensing identification, actuation, communication, and management.



IoT Service Oriented Architecture

A service-oriented architecture is an architectural pattern in computer software design in which application components provide services to other components via a communications protocol, typically over a network.



IoT and Associated Technologies

The principles of service-orientation are independent of any vendor, product or technology.

IoT is divided into two categories-

1. Industrial IoT: IoT device connects to an IP network and the global Internet. Communication between the nodes done using regular as well as industry specific technologies.

2. Consumer IoT: IoT device communicates within the locally networked devices. Local communication is done mainly via Bluetooth, Zigbee or Wi-Fi. Generally limited to local communication by a Gateway.

ARTIFICIAL INTELLIGENCE

By Twinkle B.Tech (CSE)

Artificial Intelligence is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans.

Some of the activities computer with artificial intelligence are designed for, include:

- o Speech recognition
- o Learning
- o Planning
- o Problemsolving



There are many advantages of artificial intelligence:

1)Reduction in Human Errors

With AI, the decisions are taken from the previously gathered information applying certain sets of algorithms. So, errors are reduced.

2)Takes risks instead of humans

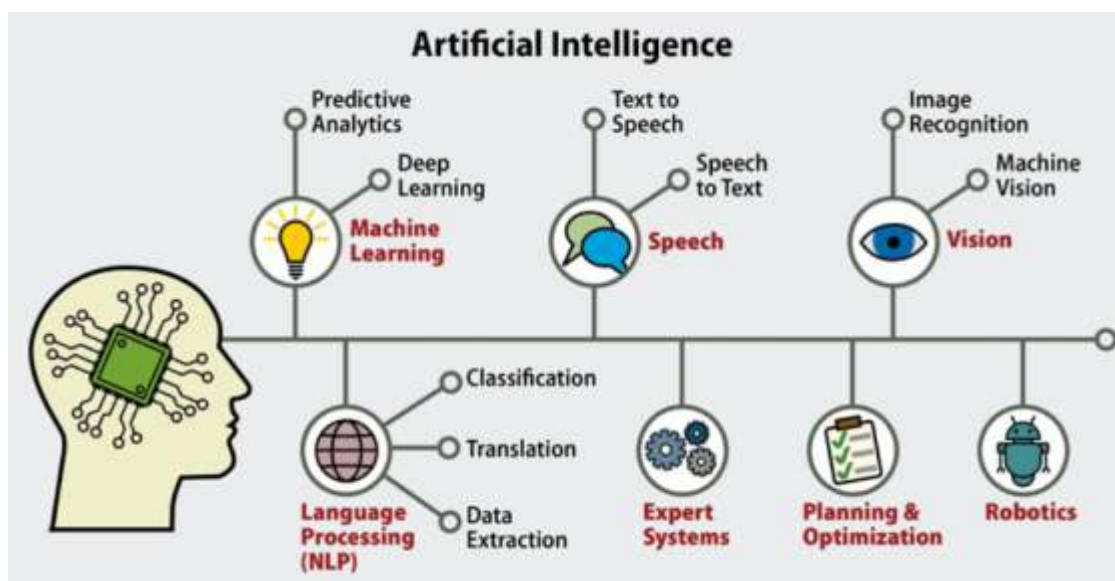
It can overcome many risky limitations of humans by developing an AI robot which in turn can do the risky things for humans.

3)Digital Assistants

Some of the highly advanced organizations use digital assistants to interact with users which saves the need for human resources.

4)New Inventions

AI is powering many inventions in almost every domain which will help humans solve the majority of complex problems.



Cloud Computing A Game Changer for Banks

By Ketan Sharma B.Tech (CSE)

Banks, regardless of size, make the most of new cloud technologies to remain in the competitive race. This shift in IT tactics delivers cost-savings, stretch ability, efficiency, versatility, and compliance. Keep up with the needs of the changing organization dynamics and new compliance regulations.

By utilizing cloud-based IT resources, that include storage, hosting, disaster recovery, and backup. To name a few, financial institutions of all sizes can reap many benefits that help them remain competitive.

Benefits to Banks of Cloud Computing

Cost Savings

With cloud computing, banks no longer require to invest in established infrastructure. Instead, businesses can maintain and access their data using their provider's cloud infrastructure. It cuts down on both the beforehand capital costs accompanying the hardware along with functional operations costs in the form of electricity consumption, controlling the temperature and maintaining the environment, etc.

Rather than paying a flat fee to keep systems up and running, cloud providers offer a variety of metered, pay-per-use options.

With cloud computing, staffing costs are also significantly reduced. Internal teams need not worry about hardware refreshes or server and software upgradations, liberating up their time to focus on what values the most: their business. Cost reductions can also be reinvested into the company to increase headcount, boost wages, and drive product innovation.

Flexibility and Scalability

By moving to the cloud, banks can respond immediately to a dynamic market, customer, and technological needs. If it needs changes, it is easy to scale-up the cloud volume, drawing on the service's remote servers while also be able to reduce the usage if need. Banks are also able to sustain their competitive edge with the strength to deploy new outlines and swiftly take them to live rapidly.

Security

Cloud technologies boost security in many ways that on premise systems lack to do so. Cloud computing can provide more comprehensive protection compared to conventional platforms, especially for smaller banks that have limited IT capital budgets. Banks usually use a patchwork of solutions for their primary processes. Due to the need to contribute ever more internet and mobile

Cloud Computing A Game Changer for Banks

By Ketan Sharma B.Tech (CSE)

Cont...

access to customers, as well as moldability in banks' workforce, it becomes more evident to cyber threats. Cloud platforms are developed with connectivity in mind and by specialized companies with minimal legacy limitations, which makes them more protected. Encryption services also provide additional layers of documents and data encryption for applications. Cloud service providers do not manage, thus preventing data secure at all times, wherever it is saved or stored. Finally, with austere protocols and security certifications like SOC2 and ISO2001 built into many services. Banks can ensure the cloud is accessed and enabled securely for any solution provider they work.

Business Continuity

Simply cloud computing provides a high level of recovery, repetition, support, and backup at lower prices than conventional engineered solutions. Cloud technologies offer a high level of data protection. Fault tolerance and disaster restoration is providing a more reliable business continuity solution due to the distributed nature of storage and processing, the ability to shift data more quickly, and the remote accessibility of the cloud in the event of a disaster.

Faculty Achievements

CSE Faculty

- ❑ Dr. Pooja Dhand
- ❑ Er. Vikram Dhiman

- ❑ Dr. Pooja Dhand
- ❑ Er. Varun Sharma
- ❑ Er. Rajni Bedi
- ❑ Er. Vikram Dhiman
- ❑ Er. Rani Geetika
- ❑ Er. Rakesh Gagneja
- ❑ Er. Amarjeet Kaur
- ❑ Er. Ranjit Kaur
- ❑ Ms. Geeta Sharma

Achievements

Successfully completed six days short term training program organised by NIT, Jalandhar on Cloud Computing.

CSE faculty members attended a Workshop on Artificial Intelligence and Two Days Short Term Training Program, organized by CSE dept. on 22nd Aug 2019 and 25-26 Sept 2019 respectively.



UPCOMING EVENTS

- ♦ Industrial Academia Meet
- ♦ Essay Writing
and Poetry Competition
- ♦ EVS Workshop
- ♦ Industrial Visits
- ♦ Social Issues and
Environment based Workshop
- ♦ 3-Days STTP Emerging Trends
in Computer Sc. & Engg.



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