

Compu Talk

A newsletter from the Dept. of Computer Sc. & Appl.

Vol. II

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What is Biometrics ?

Biometric recognition, or simply biometrics, is a rapidly evolving field with applications ranging from accessing one's computer, to gaining entry into a country. Biometric systems rely on the use of physical or behavioral traits, such as fingerprints, face, voice and hand geometry, to establish the identity of an individual. The deployment of large-scale biometric systems in both commercial (e.g., grocery stores, amusement parks, airports) and government (e.g., US-VISIT) applications, increases the public's awareness of this technology. This rapid growth also highlights the challenges associated with designing and deploying biometric systems. Indeed, the problem of biometric recognition is a *grand challenge* in its own right. The past five years have seen a significant growth in biometric research resulting in the development of innovative sensors, robust and efficient algorithms for feature extraction and matching, enhanced test methodologies and novel applications. These advances have resulted in robust, accurate, secure and cost effective biometric systems.



Verification versus identification

There are two types of recognition used in biometric systems: verification or identification. Verification confirms whether a person is who they claim to be. It is a 1:1 match-or-no-match scenario. Identification is more difficult. The system must recognize one person from all others enrolled in a database (1:N matching scenario).

Advantages over ID cards and passwords

Compared to biometric identification, traditional methods involving only ID cards or passwords are not as reliable. Passwords can be lost or stolen and ID

cards can be forged. Biometric recognition offers the following advantages:

- Users do not need to remember a password or carry an ID card
- The person to be identified must be physically present at the point of identification
- Biometric systems are much harder to foil
- Biometric traits cannot be stolen

Applications

Forensics:Biometric recognition techniques have been used in forensic applications for over 100 years: they have aided criminal investigations, identified disaster victims, and helped to locate missing children. In some applications, they can also provide a degree of accuracy that is difficult to achieve with the human eye.

Government:Forged or stolen identification cards are a common security problem all over the world.

According to the United Kingdom's Identity and Passport Service, over 290,000 U.K. passports are lost or stolen each year. Some international airports are adopting iris, fingerprint, or face recognition systems to prevent individuals from entering a country using false credentials. In some facilities, biometric scans offer air travelers the convenience of expedited passenger check-in. Driver's licenses, ID cards, and passports are beginning to include biometric information as an extra security feature.

Commercial

The need to protect personal information has led to the deployment of numerous commercial biometric recognition systems. In the U.S. alone, identity theft and credit card fraud strike millions of consumers every year, with an annual cost of around \$50 billion dollars. More and more personal and private data is stored in electronic form: medical history, credit card information, vital statistics, and more. Biometric recognition techniques can add an extra layer of security to traditional password-based systems or replace them altogether.. Advances in biometric recognition technology have led to low-cost, compact sensors, making it possible to deploy biometric systems at various places.

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An Android Mobile Operating System

Android is a mobile operating system (OS) based on the Linux kernel and currently developed by Google. Android is unique because Google is actively developing the platform but giving it a way for free to hardware manufacturers and phone carriers who want to use Android on their devices.



With a user interface based on direct manipulation, Android is designed primarily for touchscreen mobile devices such as smartphones and tablet computers, with specialized user interfaces for televisions

Internet of Things

The Internet of Things (IoT) is a scenario in which objects, animals or people are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. IoT has evolved from the convergence of wireless technologies, micro-electromechanical systems (MEMS) and the Internet. IoT is a computing concept that describes a future where every day physical objects will be connected to the Internet and be able to identify themselves to other devices. The Internet of Things extends internet connectivity beyond traditional devices like desktop and laptop computers, smartphones and tablets to a diverse range of devices and everyday things that utilize embedded technology to communicate and interact with the external environment, all via the Internet.

Examples of objects that can fall into the scope of Internet of Things include connected security systems, thermostats, cars, electronic appliances, lights in household and commercial environments, alarm clocks, speaker systems, vending machines and more.

How does this impact you?

The new rule for the future is going to be, “anything that can be connected, will be connected.” But why on earth would you want so many connected devices talking to each other? There are many examples for what this might look like or what the potential value might be. Say for example you are on your way to a

(Android TV), cars (Android Auto), and wrist watches (Android Wear). The OS uses touch inputs. Google acquired Android Inc. on August 17, 2005. At Google, the team led by Rubin developed a mobile device platform powered by the Linux kernel.

Since 2008, Android has seen numerous updates which have incrementally improved the operating system, adding new features and fixing bugs in previous releases.

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Resource:<http://en.wikipedia.org/wiki/Android>

meeting, your car could have access to your calendar and already know the best route to take, if the traffic is heavy your car might send a text to the other party notifying them that you will be late.



What if your alarm clock wakes up you at 6 am and then notifies your coffee maker to start brewing coffee for you? What if your office equipment knew when it was running low on supplies and automatically re-ordered more? What if the wearable device you used in the workplace could tell you when and where you were most active and productive and shared that information with other devices that you used while working? IoT describes a world where just about anything can be connected and communicate in an intelligent fashion. In other words, with the Internet of Things, the physical world is becoming one big information system.

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Facts About Technology Which

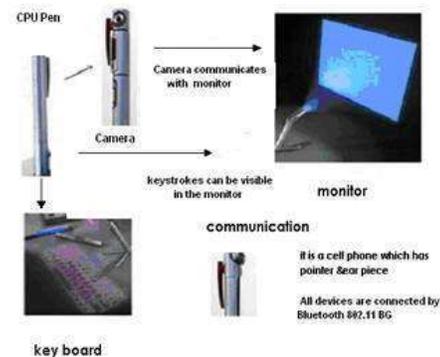
Will Amuse You

1. Over 6,000 new computer viruses are released every month.
2. The first computer mouse, constructed in 1964, was made out of wood. (by Doug Engelbart)
3. The average human being blinks 20 times a minute – but only 7 times a minute when using a computer.
4. E-mail has been around longer than the World Wide Web.
5. For every „normal“ webpage, there are five porn pages.
6. One of every 8 married couples in the US last year met online.
7. Only about 10% of world's currency is physical money, the rest only exists on computers.
8. 70% of virus writers work under contract for organized crime syndicates.
9. Bill Gates' house was designed using a Macintosh computer.
10. The average 21-year-old has spent 5,000 hours playing video games, has exchanged 250,000 e-mails, instant and text messages and has spent 10,000 hours on the mobile phone.
11. The first banner advertising was used in 1994.
12. The first domain name ever registered was Symbolics.com.
13. There are approximately 1.06 billion instant messaging accounts worldwide.
14. While it took the radio 38 years, and the television a short 13 years, it took the World Wide Web only 4 years to reach 50 million users.
15. A program named “Roth J” was the first computer virus to come into sight.

5 Pen PC Technology

Communication Technology is rapidly increasing in this modern world. Computer, as everybody knows, is the main communication machine used. Since the time computer has been invented, scientists and engineers have been trying to make it more and more compact. As a result, we have been able to enjoy the numerous functionalities provided by the computers, whether it is Home PCs or Laptops. Systems have still been reduced so that they are used in Mobiles, iPods, and iPhones, which have replaced the laptops to an extent. It is a computer broken apart into pieces, each the size of a pen. The 5 Pen PC Technology is a gadget package including five functions: a pen-style cellular phone with a handwriting data input function, virtual keyboard, a very small projector, camera scanner, and personal ID key with cashless pass function.

5 Pen PC Technology are connected with one another through short-range wireless technology. The whole set is also connected to the Internet through the cellular phone function. This personal gadget in a minimalist pen style enables the ultimate ubiquitous computing.



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Departmental News

- A Seminar on 'Career opportunities in Banks' was organized in coordination with NIIT ,Bhopal on 25th July 2015 .Lecture was delivered by Mr. Amit Taneja.



- Campus placement was organized in the college on 25th July 2015 for passout students of 2015, for placement in ICICI Bank in coordination with IFBI in which approx. 85 students took part and 40 were selected in the first round of interview. Final selection list is awaited.
- A workshop on ' How to get a Dream Career' was organized as part of the Swami vivekanand career guidance cell activity , on 13th August 2015, in association with Institute of Foreign Languages. Mr. Jigar.N.PandyaCMD , conducted the workshop.
- A 2-day workshop on 'Android Application development' was held in the college from 19th Aug to 20th Aug. , in association with Training Bulls, Noida and IIT Kanpur, in which 39 students from all faculties participated and were awarded certificates. At the end of the workshop a competition was organized and the winning teams would be participating in the Techkirti 2016 i.e. Android Apps Development Championship to be held at IIT Kanpur in March 2016.Details of winning teams are as follows:

- Winner Team I - DiskshaChauhan, JyotiAnuragi, Jyoti Singh Parihar, Darshika Jain, HarshitaNema , all of BCA V Sem.
- Winner Team Team II – RimzhimMaran, PriyankaTiwari, S. Monisha, Saumya V.S., Pooja Gupta



- Expert lecture on 'Importance of communication skills for a successful Career' was delivered by Mr. Tomichand Mathew, Career Counsellor, ITE, Bhopal on 21st Aug. 2015 for BCA Students.
- Expert Lecture on 'Computer Networking ' was delivered by Mr. HemRaj Singh Chouhan, IT Head, ITE, Bhopal on 26st Aug. 2015 for BCA Students.
- From 8th to 13th September 2015, Senior National Power Lifting Competition was held at Kanpur, Ms. AshaGaikwad Lab-technician bagged 8th Position.
- On 19.9.15, BhavishyaJyoti Scholarship Exam 2015 was organized for the 1st semester students of BCA, B.Sc. and B.Com. in association with NIIT Bhopal.
- On 10.9.15, Abhilasha Kumar delivered lecture on learning Manners & Etiquettes.
- 5 Students of BCA III Sem . along with faculty Miss MamtaSisodiya attended 'Tech-Udaan 2015 ' –a workshop on spoken tutorial project, held at Career

College in collaboration with IIT Bombay on 1st October 2015. The project is a part of National Mission of Education through ICT sponsored by Ministry of HRD, Govt. of India. All participants were awarded certificates.

- A Seminar was organized in the department on 'PHP Technology' in association with Smriti Netcom, Bhopal for the students of BCA and B.Sc.(CS) on 5th October 2015.
- A Seminar was organized in the department on 'DOT NET Technology' in association with Anantdrishti Training and Consultancy Pvt. Ltd. , Bhopal for the students of BCA and B.Sc.(CS) on 5th October 2015.
- A Workshop on Web Designing was held in the department in association with Mozilla Firefox on 6th October 2015, in which students from all classes participated.
- A seminar was held in the department on 'Cyber Security' in association with E-Genesis Software Solutions, Bhopal on 6th October 2015.
- Miss Girjesh Chouhan, acquired certification of RedHat Certified Engineer on RHEL7.
- Inhouse Internship program was initiated in the department, for the final year students of all streams in collaboration with ITE, Bhopal where in 46 students took training for TALLY, 86 students took training for Modern Office Management and 34 students took training for Software Development
- Dr. Romsha Sharma presented paper in National Seminar on "Quality Accreditation, Accountability and Assessment-Process, Motivation and performance in Colleges of Higher Education in Madhya Pradesh" from 16th – 17 th January,2016 at Chandra Shekhar Azad, Govt P.G Nodal College Sehore.
- Mrs. Chhaya Makhijani attended National Seminar on "Quality Accreditation, Accountability and Assessment-Process, Motivation and performance in Colleges of Higher Education in Madhya Pradesh" from 16 th – 17 th January,2016 at Chandra Shekhar Azad, Govt P.G Nodal College Sehore.
- Students appeared for campus placement held on 28/29th Jan. 2016 at Career College for Infosys BPO Ltd. . Three students were selected :Ritu Chouhan B. Com VI Plain, Neha Dudhbhawne B. Com VI Sem Plain, Palak Mishra B. Sc.VI Sem Biotech.
- Students appeared for campus placement held on 28th Jan. 2016 at IES College for Infosys Ltd.. One student was selected for the post of Software Developer :DikshaChouhan BCA VI Sem.
- 7-day workshop was organized in collaboration with ITE, Bhopal on " PHP and SQL Technology" from 21/1/2016 to 27/1/2016 under the Swami Vivekanand Career Guidance Cell activity under the UGC XII Plan.
- Three day Entrepreneurship Awareness Camp was organized in the college in collaboration with MPCON Ltd. In which 88 students of Science and computer faculty participated. The students were also taken for a field visit to the industry.
- Staff Members of Computer Sc. Dept. Abhilasha Kumar, Vaishali Kadwey, Arpana Sinhal,Babita Sakalle and Girjesh

Chouhan attended International Workshop on 'Content writing for the Web' organized by BSSS College on 6th Feb. 2016.

- HoD, Abhilasha Kumar, was invited by Sant Hirdaram College as an expert for Quality Audit of Computer Dept. on 5th February 2016.
- Students appeared for campus placement held on 5th Feb. 2016 at IES College for Accenture BPO . One student was selected :
Rekha Khatri BSc (CS) VI Sem.
- Students appeared for campus placement held on 29th Jan. 2016 at Career College for TCS BPO . One student was selected :
Pooja Gupta B Com VI Sem. Plain
- Students of BCA participated in the Intercollege Masquerade Competition organized by BSSS College held on 18/02/2015. Following students won prizes in the competition:
 - Pooja Jain BCA IV Sem : I Prize
 - Achal Shukla BCA IV Sem : II Prize
- Ku. DikshaChouhan won I prize in the PushpawatiLal essay competition 2015-16 , which is an annual event held in the college.
- Campus placement was organized in the college on 29th Feb. 2016 for students passing out in 2016, for placement in ICICI Bank in coordination with IFBI in which approx. 110 students tookpart. Final selection list is awaited.



- Students of BCA and B Sc. VI Sem appeared for Campus placement drive by TCS at Oriental College on 3rd March 2016.
- Subsequent rounds of selection process for IFBI were held on 5th March 2016 and following 3 students were selected
 - Prachi Mishra B.Com (Comp.) VI Sem.
 - RituTiwari BCA VI Sem.
 - AishwaryaDurge BCA VI Sem.
- Ku. AshaGaikwad, Lab. Technician, was awarded "Shram Shree Award" by Shri Rambabu Sharma, Chairman, Shram Shree SevaOrganisation and rewarded by Rajiv Gandhi Prodigiki Mahavidyalaya, Bhopal on the occasion of International Women's Day for her contribution to power-lifting.
- Staff Members of Computer Sc. Dept. Abhilasha Kumar, Vaishali Kadwey, Arpana Sinhal, Babita Sakalle ,Chhaya Makhijani, Romsha Sharma attended National Seminar on 'Assemblage of Digital Era 2016' at BSSS College on 18th and 19th March 2016.
- Ku. PrachiMishra of B.Com (Comp. Appl.) was selected as Business Analyst by WAYS2CAPITAL, Indore on 17th March 2016 with a package of 3.45 lakh.
- Ku. AshaGaikwad, Lab. Technician, participated in the National bench press Championship held at Rait-Himachal Pradesh on 28th March and won Bronze Medal.
- Campus placement drive was organized in the college on 9th April 2016, for students of B.Com. VI Sem by Bucks Gainer, Indore for the post of Business Analyst. Ku. PrachiShrivastava , was selected.