

A view in the emerging IOT and embedded system technologies

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Abstract: the present work deals with divergence of the technology that is seen from last decades. The various techniques that has been motivating human survival in the field of nano sciences is not only involved with the emerging trend of IOT and cloud computing but also with a boom in the field of computer science and programming.

Keywords : IOT, Embedded Systems, Cloud computing, robotics, fuzzy logic, psy and AI.

I INTRODUCTION

the present era contributes to the various advancements that are forging a new trend in the market of computer sciences, computer forensics now the thinking pedagogy has changed the mindset of the youth toward smart technology, things are becoming compact, technology is shrinking to nanometers and more negative power of scaling.

The technology has done a handshaking with the modules of some trends that are running in parallel with each other.

The field of computer science, and mechanical engineering has given birth to what is called mechatronics and robotics that take some part of electronics and electrical engineering in common.

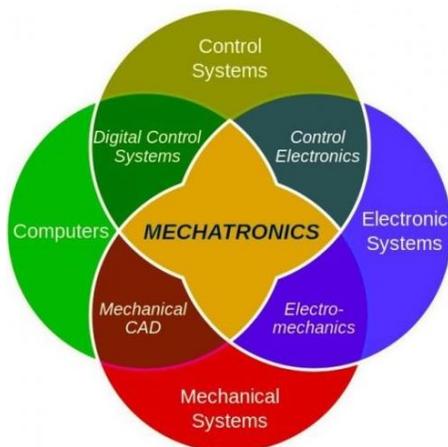


Fig 1. Mixed trends of engineering

The above figure shows a dynamic thinking giving rise to an intersection formed by different sets of engineering. This intersection can be IOT robotics, biomedical engineering, mechatronics, embedded systems, virtual technology, computer forensics, electronics and psy, brain mapping ,mind reading and much more.

The reluctance shown by the path of development has greatly been reduced by tremendous efforts that are coming from the needs of the becoming more comfortable and peace loving nature of human mind with time.

The instances of technologies that are emerging with the assertive attitude of human desire to be more tech. dependent is forcing a new think among the virtue.

II. Computer Forensics



Computer Forensics deals with the criminology associated with computers and their malfunction. The computer sometimes shows an offensive behavior to some systems that may cause loss of

data of theft of information related to some confidential. The trend of computer forensic deals with the advanced intervention techniques that can be used to check the presence of any intrusion and hack in the operating system.

So that can be considered as broader extension to programming languages and the AI algorithms' for optimization. With the advancement in technologies come over cyber space has been increasing with a great pace.

To cope up with the issue three is need of technology that can find single zero in the computer that can cause alteration. The above science deals with the issue.

III. PSY AND BRAIN



The use of AI and neural network in cognitive thinking is a merger of computer science and psychology. The human mind and computer networks are promoting new challenges that can give rise to better understanding in machines and reduce human efforts to great minima.

The PSY deals with the cognitive domain of human and the AI maps it to a machine. It can be easily understood as a transformation of the machine thinking to human thinking. In order to provide this cognitive behavior in systems that understand streams of zero and ones methods and algorithms are developed that are closer to the human ecosystem, giving rise to evolutionary algorithms.

We can take a better example of tuning a PID controller with Genetic algorithm. A genetic algorithm provides a better way to tune a PID controller to provide better flexibility to AVR and hence to the plant. But what is our motive, we only want that our machine to take into considerations that values of gains that are expressed with greater number of significant figures and also we want to tune the manipulation in a better way so that a flexible behavior can be observed.

BEING A FLEXIBLE THINKER	
Flexible Thinking	Stuck Thinking
Thinking of Others Person	Just Me person
People feel good	People feel tense, frustrated, mad, or sad
We get things done	Situation is difficult, we don't get things done
Expected behavior	Unexpected behavior

Fig.4 Comparison between flexible thinking and stuck thinking.

The above table shows that a flexible thinking comes from a positive approach towards problem and provides far better results with systems that need greater machine control.

IV. AREIFICIAL INTELLIGENCE



With an Urge to develop more and with greater comfort our human nature wants to give all control to machines and only wants to take rest. Though it is not good and can be a curse to mankind but it is making our machines more independent and self thinker. Now we don't want to tease our minds for a solution but a computer can do it in seconds.

AI deals with study of processes and algorithms that are designed to promote better cognitive thinking in machines parallel to human beings.

But there are some limitation, the human mind can float in many states according to psy but it will be impossible for us to define such states with a high level language problem that can make a machine to work like human mind.

For an instance a human mind can be conscious, subconscious, and unconscious, but we cannot have library in our computer language that can perfectly map these states.

V. CONCLUSION

Our thinking of making machines more closer to human nature can really go to some extent that is virtually possible but in real world there is still a gap between the two.

The gap can be filled artificially by the use of AI, IOTs and all those discussed but can never be realized completely occupied.

VI. References

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