



October - December. 2018

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

## “TECH SAGA”

A Newsletter of CSE & IT Department



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### **Editorial board -**

Faculty Members -

- Prof. Punit K. Johari.
- Prof. Amit Kumar Manjhvar.
- Prof. Aishwarya.
- Prof. Pooja Agarwal.
- Prof. Ram Parvesh Das.

Student Members -

- Sudipti Banerjee, CSE M.Tech-Final year.

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CONTACT:  
[cseit.mitsgwl@gmail.com](mailto:cseit.mitsgwl@gmail.com)



Computer Science is a science of abstraction -creating the right model for a problem and devising the appropriate mechanizable techniques to solve it.

— Alfred Aho —

AZ QUOTES

## PUBLICATIONS IN JOURNALS

1. Lav Upadhyay, “Quantum Cryptography: A Survey”, 9th International Conference on Innovations in Bio-Inspired Computing and Applications, Kochi India, 17 - 19 December 2018.
2. Jyoti Agarwal, Neha Bhardwaj, " Trust based Multipath Routing technique for blackhole detection and prevention in MANET" Journal of emerging technologies and innovative research, Volume 5, Issue 11, Nov 2018 print ISSN 2349-5162.
3. Deeksha Kushwah and Rajni Ranjan Singh, "An Approach to Meta-Alert Generation to Reduce Analyst Workload", International Journal of Communication System and Network Technology, Vol. 7 - Issue. 02, 2018, ISSN 2053-6283.
4. Ankita S. Tomar, Rajendra Kumar Gupta and Khushboo Agarwal “A data Mining Approach for Identifying the Reasons Behind the failure of Alcohol Consuming students” in JETIR Vol 6, issue 1 page no 126-130.
5. Ankita S. Tomar, Rajendra Kumar Gupta and Khushboo Agarwal” A Review of Data Mining Approaches for Predicting Student’s Performance” International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES) Volume 4, Issue 10, October-2018.

## FACULTY OUTREACH (TRAINING PROGRAM / FDP ATTENDED / INDUSTRIAL VISIT)

1. Prof. Punit Kumar Johari has Completed one-week Faculty Development Programme under NPTEL-AICTE, "Introduction to Machine Learning" during Aug.-Oct. 2018.
2. Prof. Amit Kumar Manjhvar, Prof. Abhishek Dixit, Prof. Nishtha Parashar, Prof. Kirti Gaur and Prof. Vishwas Srivastava have attended two days National Workshop on "*Advanced Optimization Techniques and Research Direction under TEQIP III*" conducted by Department of Electrical Engineering at Madhav Institute of Technology and Science, Gwalior M.P. during 16 to 17 November, 2018.

## ACTIVITIES ORGANIZED

1. Department of CSE & IT celebrated **Gandhi Jayanti and Swadeshi Apano Abhiyan** on 2<sup>nd</sup> October 2018 under external activity. After celebrating at department, Faculty members went to Gandhi Garden, Phoolbagh, Gwalior and gave their tribute to Mahatma Gandhi.





2. Dr. Manish Dixit Associate Professor CSE & IT department, organized a **Seminar on stress management**, at MITS, seminar date: 29 Oct. 2018, Jointly organized with Student counselor Ms. Divya Gupta.





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## अपने लिए निकालें समय, काम के साथ रखें खुशी का भी ख्याल

**एमआईटीएस में स्ट्रेस मैनेजमेंट पर आयोजित किया गया सेमिनार**

**स्वास्थ्य**। एमआईटीएस में बीई के स्टूडेंट्स के लिए स्ट्रेस मैनेजमेंट विषय पर एक दिवसीय सेमिनार आयोजित किया गया। इसमें एक्सपर्ट्स द्वारा स्टूडेंट्स को बताया गया कि वे किस तरह अपने जीवन में तनाव प्रबंधन कर सकते हैं। किस तरह स्ट्रेस पर काबू पा करके स्टूडेंट और प्रोफेशनल्स लाइफ में सफलता प्राप्त कर सकते हैं।

कार्यक्रम में एक्सपर्ट के रूप में डॉ. मनीष दीक्षित मौजूद थे। उन्होंने स्टूडेंट्स से इंटरैक्शन करते हुए स्ट्रेस के विभिन्न रूपों पर चर्चा। अगले क्रम में दिव्या गुप्ता ने यह बताया कि स्टूडेंट्स को स्ट्रेस कब होना है और इसके कारण क्या हैं। इसके साथ ही उन्होंने यह भी जानकारी दी कि स्ट्रेस की वजह से लोगों में कैसे शारीरिक, व्यवहारिक एवं भावनात्मक बदलाव आते हैं। एक्सपर्ट्स ने स्टूडेंट्स को बताया कि स्ट्रेस को दूर करने के लिए हमें व्यायाम करना चाहिए। लोगों से इंटरैक्शन करना चाहिए। स्टूडेंट्स को पढ़ाई के साथ-साथ अपने लिए क्वॉट निकालना चाहिए। हमारे पास जो रिसोर्स हैं, उनका उपयोग करते हुए स्ट्रेस को कम करने का प्रयास करना चाहिए। यदि कोई छात्र हॉस्टल में रहता है तो वे कैम्प में ही वॉकिंग या जॉगिंग कर सकता है। दिन में कम से कम एक ऐसा काम करना चाहिए, जिससे स्वयं को खुशी मिले। इसके अलावा हमारा खानपान सही होना चाहिए। कई बार नींद पूरी नहीं होने की वजह से भी तनाव होता है। इसलिए सभी को पर्याप्त नींद लेना चाहिए।

एमआईटीएस कॉलेज में आयोजित सेमिनार को संबोधित करते एक्सपर्ट ।

## FACULTY ACCOLADES

- **Dr. Manish Dixit**, Associate Professor, CSE & IT department delivered key note lecture on “New Era of Technology: Applications for Society” at LNUPE, Gwalior in an orientation program on 13 Oct 2018.
- **Dr. Manish Dixit** has delivered a key note address on Inauguration of IEEE student chapter in Vikrant Institute of Technology and management, Gwalior.
- **Prof. R. R. Singh**, Assistant Professor, CSE & IT department delivered key note lecture on “Application of Technology for society: security issues” at LNUPE, Gwalior in an orientation program on 13 Oct 2018.

## STUDENT ACTIVITIES/ACHIEVEMENTS

### MITS CODEWAR CLUB

The MITS Codewar Club with the Dept. of CSE & IT (MITS Gwalior) was organized a 3-week course on "Introduction to Programming and Problem Solving with Python". The course is being held under the Infosys Campus Connect Programme. Here, the Codewar Club Members (third-year students) under the guidance of faculty coordinator hold one-hour classes for learners on a regular basis. Doubt clearance sessions of longer durations are also held. The course is based on the principle of "peer-to-peer learning", as here it is the students who mentor other students. The course has 35 participants, who are guided by 7-8 seniors. The Club has also launched a website and a discussion forum is available for online doubt clarifications.



## 1. ACM STUDENT CHAPTER ACTIVITY

Recursive Assault was a gaming group event at inter- college level. Five events were conducted namely CSGO, 8-BIT Gaming, FIFA, PUBG, RUBIK'S CUBE. Events played on computer as well as on mobile. PUBG, was onsite as well as online. FIFA was 3D gaming event. The system was designed by student itself. These all activity was successfully conducted under the guidance of Prof. Neha Bhardwaj.







# MITS CELEBRATING FOUNDERS DAY



# LATEST COMPUTER TECHNOLOGIES

## Contacts Measuring Glucose

Jin Shang, a professor of biochemical engineering at the University of Western Ontario, has invented a contact lens that changes color when sugar levels change in the blood. Those suffering from diabetes need to draw blood to check sugar levels.

Nanoparticles implanted in contact lenses interact with glucose molecules in tears. This interaction changes the color of the lens to indicate varying sugar levels.

This new medical invention could eliminate the need to draw blood to monitor glucose. Dr Zhang's research received funding from the Canadian Foundation for Innovation to develop more nanocomposite applications for biomedicine.



## Infant Warmer

Sometimes it's the simplest of medical inventions that save millions of lives. Meet inventors Jane Chen and Rajan Patel, and their innovative infant warmer. Every year 20 million babies are born premature. They struggle to survive because they can't regulate their body temperature and they don't have enough fat on their tiny bodies to keep warm.



Approximately 14% of babies born are considered low birth weight, but these babies account for 60-80% of neonatal deaths. The solution is to keep premature babies warm but an incubator costs \$20,000 and requires electricity which is difficult to find in developing countries, particularly in rural areas.

Parents resort to drastic solutions to keep their babies warm. They attach hot water bottles to them or place them under light bulbs, which is not only ineffective but unsafe. As a result, 4 million premature babies die each year. Two-thirds of deaths occur in ten countries and 40% of those occur in India. Those that survive endure severe long-term health problems (diabetes, heart disease, mental dysfunction) because they're battling hypothermia instead of growing.

To solve this problem Jane and Rajan, graduates of Stanford University, created an ingeniously simple, portable, reusable infant incubator that requires no electricity and costs less than thirty dollars. It is safe and intuitive to use. It has no moving parts and can be easily sterilized. It looks like a tiny sleeping bag but its design is very clever.

It has a pouch that contains a "phase-change wax material" that radiates heat throughout the insulation at a temperature of 37 degrees Celsius (98 F) - the temperature critical for the child's survival. The pouch is removed from the insulated blanket and activated by placing it in hot water for 15 minutes. It's then placed into the blanket. The phase-change material maintains a constant temperature for 4 hours by absorbing heat if the baby gets too hot, and giving heat if the baby gets too cold.