



**DEPARTMENT OF COMPUTER APPLICATIONS**



# **PRAGATI**

**MCA NEWS LETTER - 2020**



**Sri Krishnadevaraya Educational Trust**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**Affiliated to VTU, Belagavi, Approved by AICTE, NEWDELHI, Govt. of Karnataka**

**Accredited by NAAC UCG**

**Off International Airport Road, Krishnadevaraya Nagar Bengaluru-562157, Karnataka, India**



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## **DEPARTMENT OF COMPUTER APPLICATIONS**



### **DEPARTMENT VISION**

- To develop professionals having good knowledge skills and attitude to be competent enough in the global environment, to serve the society and IT industry.

### **DEPARTMENT MISSION**

- To establish an environment for education and skill development on par with global environment.
- Providing state of art facilities, to achieve high quality in computer applications.
- To inculcate social and ethical responsibilities among the students to serve society and industry.

### **PROGRAMME EDUCATIONAL OBJECTIVES (PEO'S)**

- PEO 1: Educate students to be successful computer application professional in a global environment.
- PEO 2: Enhance the student's prospects for a career in academics and provide access to higher degrees by research programs and practice lifelong learning.
- PEO 3: Provide exposure to cutting edge technologies and training to work on multidisciplinary projects in a team.
- PEO4: Develop a sense of social, ethical and professional responsibility with a capacity to demonstrate an understanding and application of the human dimension of technology and impact on mankind.

### **PROGRAMME OUTCOMES (PO'S)**

- PO 1: Computational Knowledge: Apply knowledge of computing fundamentals, computing specialisation, mathematics, and domain knowledge appropriate for the computing specialisation to the abstraction and conceptualisation of computing models from defined problems and requirements.
- PO 2: Problem analysis: Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.
- PO 3: Design/development of solutions: Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
- PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.
- PO 6: Professional Ethics: Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practices.
- PO 7: Life-long Learning: Recognise the need, and have the ability, to engage in independent learning for continual development as a computing professional.
- PO 8: Project management and finance: Demonstrate knowledge and understanding of the computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 9: Communication Efficacy: Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.
- PO 10: Societal and Environmental Concern: Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practices.
- PO 11: Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.
- PO 12: Innovation and Entrepreneurship: Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.

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**SIR M.VISVESVARAYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER APPLICATIONS**



# **PRAGATI**

**MCA NEWSLETTER - 2020**

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**DEPARTMENT OF COMPUTER APPLICATIONS**



**Dr. Manjula Sanjay Koti**  
**Prof. & HOD**

The Department of MCA was started in the year 1998 with an intake of 30. The intake was subsequently increased to 60 in 2001. The excellent infrastructure, teaching faculty of the best kind of the Department ensures quality education such as interaction among students, parents and staff, along with a Training and Placement Cell ensures a bright future to the students. The Department of MCA is working towards the goal of providing innovative and quality education with high standard to achieve academic excellence and provides platform for the students to achieve their career goals. The department has several MOUs with reputed organizations which helps in training students and faculty on latest cutting edge technologies and to pursue Research and Development activities has received funded research project. International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN 2020), February 20-21, 2020 was organized.

The faculties of the department are pursuing research in the areas of Data Mining, Cloud Computing. The faculties and students have publications in reputed International Journals and Conferences. The students take active participation in inter-collegiate and intra-collegiate events and have won prizes.

The department organizes number of workshops, seminars and expert talks by inviting reputed experts from industry and academia. With regard to the placement, the department has done exceedingly well with students working in reputed multinationals like Cerner, Oracle, Infosys, TCS, Accenture, Cognizant, HCL, Polaris, Wipro, IBM etc.,

I wish all the students and faculty a good academic career.





### Teaching Staff:

Sl. No.	Name	Designation
1	Dr. MANJULA SANJAY KOTI	PROF. & HOD
2	Ms. LAKSHMI K	ASSO. PROF.
3	Ms. SUJATHA ANAND	ASSO. PROF.
4	Ms. LATHA R	ASSO. PROF.
5	Mr. MUTHURAMALINGAM B	ASST. PROF.
6	Ms. VANI HARAVE	ASST. PROF.
7	Mr. RAGHAVENDRA RAO B G	ASST. PROF.
8	Mr. VASANTHA S	ASST. PROF.
9	Ms. SNEHA BHARTI	ASST. PROF.
10	Ms. KOMALA R	ASST. PROF.

### Non Teaching Staff:

Sl. No.	Name	Designation
1	Ms. ASHWINI R	PROGRAMMER
2	Ms. NIVEDITHA A	PROGRAMMER

### Administrative Staff:

Sl. No.	Name	Designation
1	Mr. PRABHAKARA S	CLERK/TYPIST
2	Mr. LAKSHMAPPA	PEON

## PRINCIPAL MESSAGE:



It gives me great pleasure to write a few lines for the annual issue of MCA department Newsletter “PRAGATI” 2020. I believe this newsletter will provide the bench mark for continued improvement in overall development of the department. I hope, this newsletter will serve as a means of providing a complete package of expressing staff and student’s creative ideas, innovative projects, achievements such as technical publications and related academic & research initiatives. It should also serve as a good source of guidance for staff and coming batches of students in choosing activities in the future for building their careers I congratulate the HOD, Staff and MCA Students for their tremendous enthusiasm, amazing involvement of academic interest that is shared in this issue of newsletter. My profound thanks to the editor and team of this newsletter for their initiative and interest in publishing it. I wish may the future issues grow with greater ideas through your appreciation and feedback.

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## HOD MESSAGE:



It gives me great pleasure to congratulate staff and students of department of Computer Applications for the publication of our newsletter “PRAGATI”. Newsletter is an amalgamation of all the events held in the department during April 2019-2020 and it plays an instrumental role in providing a greater exposure of the achievements accomplished by the students and the faculty. We are very much grateful to our management and principal for their continuous support, inspiration and encouragement in bringing out this newsletter.

## STAFF FOCUS

### **Achievements:**

Dr. Manjula Sanjay Koti

Funded Research Project - Received Rupees two Lakhs for UBA Project from IIT, Delhi during June 2019.

Organized - Springer International Conference on Evolutionary Computing and Mobile Sustainable Networks held on Feb 20-21, 2020 at SIR MVIT.

Awards - Appreciation from NPTEL for being an Active SPOC for 2019.

### **Faculty Publications:**

Dr. Manjula Sanjay Koti, Improved Quality of Patient Care and Data Security using cloud Crypto System in HER, [ssrn.com/abstract=3477861](https://ssrn.com/abstract=3477861), Elsevier SSRN , Oct 2019.

K. Lakshmi, M. Rudresha, A Review on Python and the Reasons for its Popularity in the proceedings of the 3rd National Conference on Emerging Technologies in Computer Science and Engineering - 2020, NCAEMS-2020, ISBN NO:978-81-945588-1-1, Page 246 - 251, June 2020.

K.Lakshmi, Compact in-memory representation of large graph databases for efficient mining of maximal frequent sub graphs, Concurrency Computat Pract Exper, Volume 11, 04, Mar - 2019.

K.Lakshmi, Efficient Frequent Sub Graph Mining – M, Journal of Advanced Research in Dynamical and Control Systems (JARDCS), Volume 11, 04, Mar 2019

R.Latha, Vani Harave and Sneha Bharti, An Overview on Structure, Characteristics and Development of an Expert System, International Journal of Computer Science Trends and Technology (IJCST), Volume 8 Issue 2, ISSN: 2347-8578., Mar-Apr 2020.

Muthuramalingam B, N.S. Akshay Bharadwaj, Cryptography Encryption and Decryption File Protection Based On Mobile Bluetooth Proximity, International Research Journal of Engineering and Technology (IRJET), Volume 06 ,Issue 04, Apr 2019.

Vasanth S & Raghavendra Rao B G, Comparative study on Web Development - Web 1.0, Web 2.0 & Web 3.0 , Presented in National Conference SAMVIDH 2019 and published in International Journal of Research and Analytical Reviews, Volume 6, Special Conference issue ISSN: 2349-5138, Oct 2019.

## TECHNICAL EVENTS

### International Conference:

International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN 2020), February 20-21, 2020 was organized.



**ICECMSN 2020**

### Events Conducted:

1. The department of MCA had organized PGCET Coaching class for BCA, B.Sc. & B.com students on 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> July 2019. The coaching classes were conducted by the faculties of the department. The response for these classes was very good. Many students were benefited from this.
2. 3 days Student Development Program on Advanced Python Programming and Application Framework was organized on 25<sup>th</sup>, 26<sup>th</sup> & 27<sup>th</sup> September 2019 for third and fifth semester students. Mr. Kishore Kumar S, Data Engineer from Data Weave, Bengaluru and Mr. R G Venkatesh Prasad, Solution Architect from Akamai Technologies, Bengaluru were the resource persons.



**SDP on Advanced Python Programming and Application Framework**



3. Women Entrepreneurship and Leadership expert talk was organized on 9<sup>th</sup> November 2019. Ms. Bhavan Vijay Kumar, Entrepreneur was the chief guest.



**Expert talk on women in Tech**

4. SDP on Programming Skills was conducted on 11<sup>th</sup>, 12<sup>th</sup> & 13<sup>th</sup> November 2019. Mr. Raamaa G. Srinivas, Technology Consultant from RICHMAN & FREELAND was the resource person.



**SDP on Programming Skills**

5. Mr. Raghavendra M. Deshpande, Devops Trainer, Global Quest Technologies, Bengaluru, gave a seminar on Devops on 22<sup>nd</sup> November 2019. Mr. Rajendra Kulkarni, soft skill mentor shared the importance of soft skills in the industry.



**Seminar on DevOps**

6. Seminar on Career Ventures was shared by Mr. Chetankumar G Shetty, Technical Director, IGS India Pvt. Ltd, Mr. Sreehari Venkat Narayana, Sports Data Analyst, Desmotec Company and Mr. Shreyas, Computer Networks engineer at Politecnico Di Torino on 21<sup>st</sup> December 2019.
7. PTM was organized in the department on 28th December 2019. The parents interacted with HOD and respective local guardians of their wards.



**PTM**

8. Webinar – “Skills for Workplace Success” was conducted on 7<sup>th</sup> May 2020 for all Semester MCA Students. Mr. Rama Harave, Partner and Learning & Development Head, Eka Consultants India was the resource person for this Webinar.

Sir M. Visvesvaraya Institute of Technology, Bangalore  
Department of Computer Applications

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Webinar on “Skills for Workplace Success”


Date – 7<sup>th</sup> May 2020

Time – 1000 – 1200 hrs



**Rama Harave**  
Partner and Learning & Development Head  
Eka Consultants India

9. Webinar - "Ethical Hacking" was conducted on 11<sup>th</sup> May 2020 for all semester MCA students. Mr. Samarth Bhaskar Bhat, Certified Ethical Hacker, Technical Director, Reverse Engineering InfoSec was the resource person for this Webinar.

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**Department of MCA**

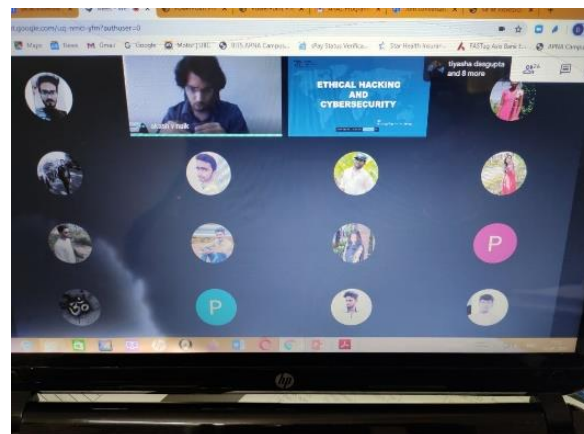
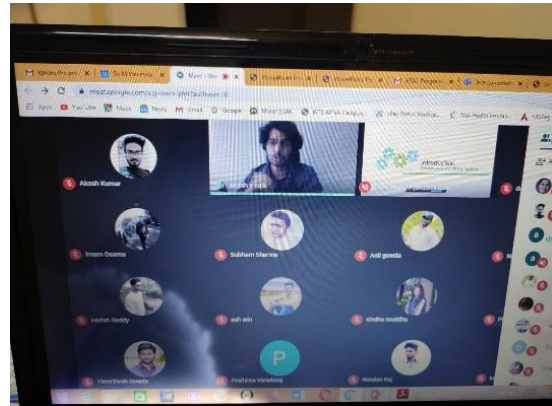

● Live Webinar:

**Webinar on "Ethical Hacking"**

May	Time
<b>11</b> 2020	10 : 00 am to 11 : 00 am

**Speaker**

Mr. SAMARTH BHASKAR BHAT  
Certified Ethical Hacker,  
Technical Director,  
Reverse Engineering InfoSec



10. Webinar – "Tech Ethics" was conducted on 12<sup>th</sup> May 2020 for all semester MCA students. Mr. Veeranna D Mallur, Assoc. Software Engineer, Accenture India & Mr. Shananth Kumar N, Assoc. Software Engineer, Accenture India were the resource persons for this Webinar.





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### Department of MCA

### Webinar on "TechEthics"

#### Speakers :



**Mr. Veeranna D Mallur.**  
Associate Software Engineer,  
Accenture India.

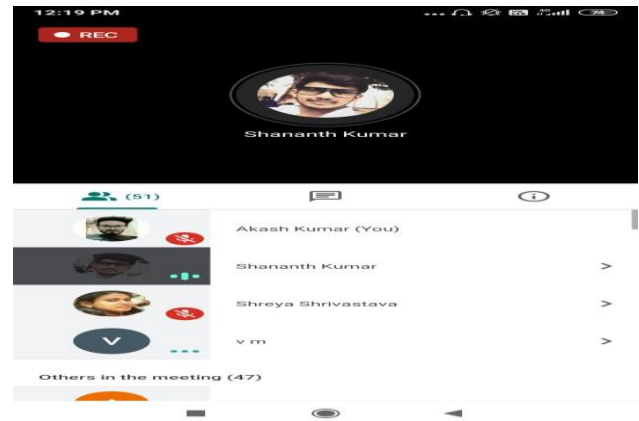


**Shananth Kumar N.**  
Associate Software Engineer,  
Accenture India.

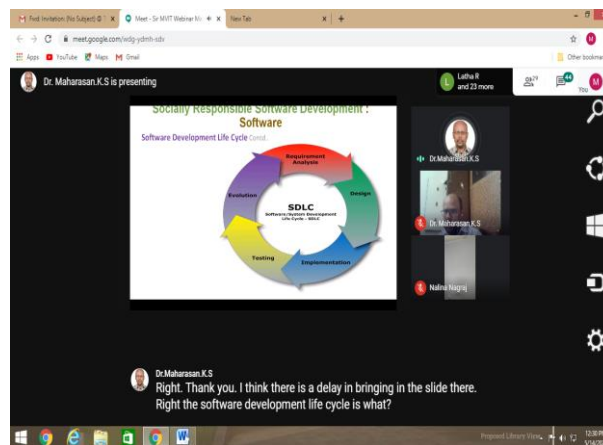
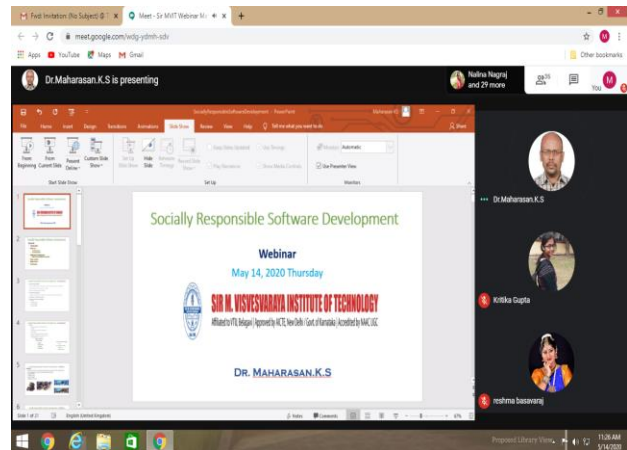
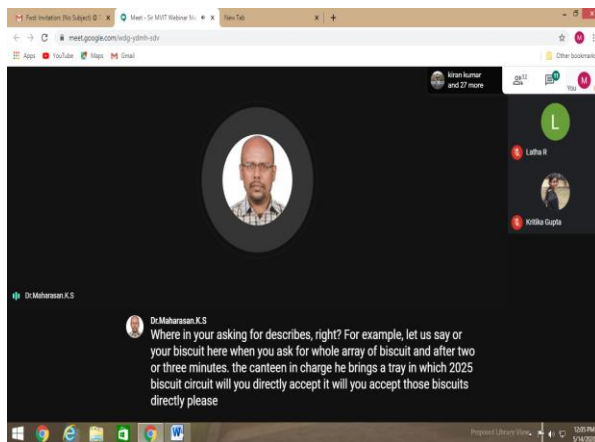
May  
12  
2020

Time  
11:00 am  
to  
12:00 pm

Online Platform: Google Meet



11. Webinar -"Socially Responsible Software Development" was conducted on 14<sup>th</sup> May 2020 for all semester MCA students. Dr. Maharasan K, Business Analyst, Technologies Division, True Friend Management Support Service Pvt. Ltd. Coimbatore was the resource person for the Webinar.



12. Webinar -"Backend Development" was conducted on 16<sup>th</sup> May 2020 for all semester MCA students. Mr. Pranav Kumar, Senior Software Engineer, Wipro Technologies, Bangalore.



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**Department of MCA**

**WEBINAR**  
**Backend Development**

**Speaker :**

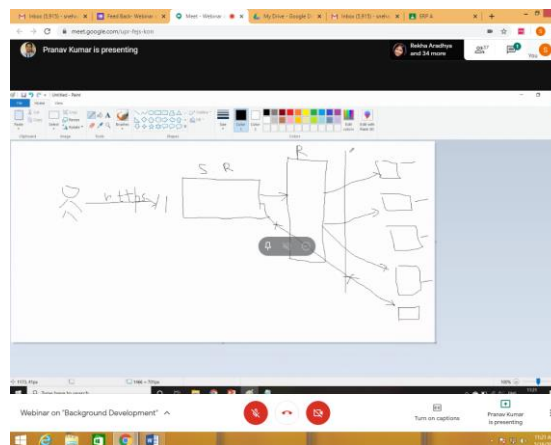


**Mr. Pranav Kumar**  
 Senior Software Engineer  
 Wipro Technologies.

**May 16**  
 2020

**Time**  
 10:00 am to 12:00 pm

Google Meet

13. Webinar – “Micro Services & Kubernetes” was conducted on 21<sup>st</sup> & 22<sup>nd</sup> May 2020 for all semester MCA students. Mr. Lokesh Abichetty, Software Engineer, Lowes, Bangalore and Dr. Dhanalakshmi, Professor, Whenzhou University, China were the resource persons for the Webinar.

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**Department of MCA**

**Webinar on**  
**“Understanding Microservices with Docker”**

**Speaker:**



**Mr. LOKESH AVICHETTY**  
 Software Engineer,  
 Lowe's services India Pvt. Ltd, Bangalore

**Date: 22<sup>nd</sup> of May 2020**  
**Timings: 11 AM**

Online Platform: Google Meet | e-Certificate will be provided to all the participants




14. Webinar –“Selenium Basics” was conducted on 23<sup>rd</sup> May 2020 for all semester MCA students. RamyaJayam, Quality Assurance Engineering Analyst, Finserv, Bangalore was the resource person for the event.

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**Department of MCA**

**WEBINAR :**  
**on**  
**Software Testing using Selenium**

**Speaker :**



**Mrs. Ramya Jayam**  
 Quality Assurance  
 Engineer Analyst  
 Finserv

**Join us**  
**on Saturday,**  
**May 23<sup>rd</sup>, 2020**  
**from 11:00 AM to 12:00 PM**

**Platform:**  
 Google Meet

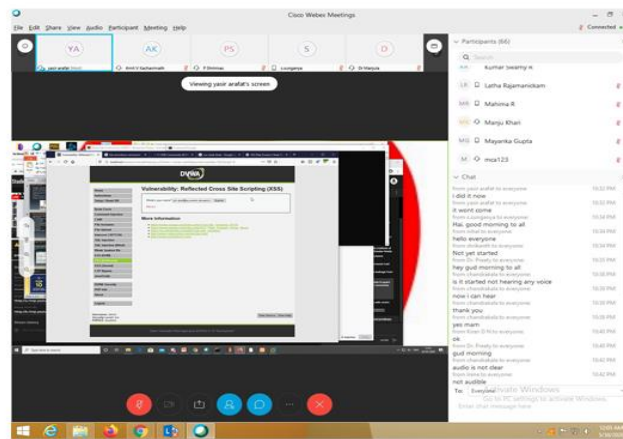
**REC ramya jayam is presenting**

**Selenium WebDriver Architecture**

**Real Browsers**  
 Firefox Browser  
 Chrome Browser  
 Safari Browser  
 Opera Browser  
 Edge Browser

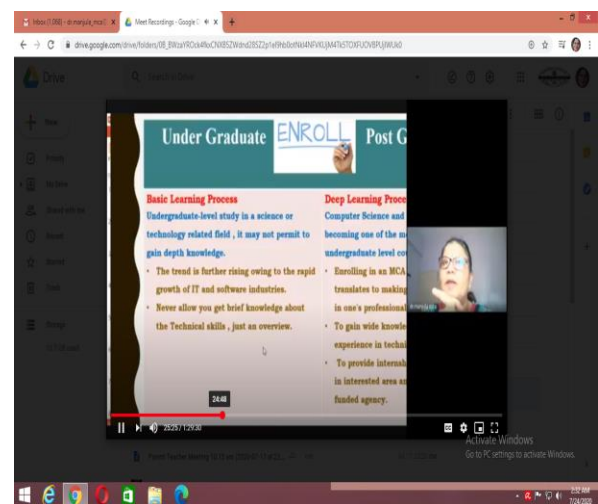
**Platform:**  
 Google Meet

15. FDP – “Ethical Hacking & Penetration Testing” was conducted on 28<sup>th</sup> & 29<sup>th</sup> May 2020 for faculties of various Colleges. Mr. ShaikYasir Arafat, Technical Member, National Cyber Defence Research Center, India CTO, Macksofi Technologies pvt. Ltd., Mumbai was the resource person for the event.



16. Alumni Interaction – “Campus to Corporate Connect” was organised on 20<sup>th</sup> June 2020 for all semester MCA students. Mr. Imdad Gayaz, QA and Development was the resource person for the event.

17. Webinar – “MCA Walkthrough – A Career View” was conducted on 26<sup>th</sup> June 2020 for BCA, B.Sc. & B.Com. Students of various Colleges. 136 students participated in this event. Dr. Manjula Sanjay Koti, Prof. & HOD, MCA, Sir MVIT, Bangalore was the resource person for the event.



18. Webinar – “Patents-Tips and Tricks” was conducted on 4<sup>th</sup> July 2020 for faculty of all disciplines. 330 faculties are participated in the Webinar. Dr. Madhan Kumar Srinivasan, Assoc. Vice-President & Lead-Cloud Analytics, ICI, Innovation Centre, Accenture was the resource person.

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In Association with  
**Computer Society of India, Bengaluru Chapter – V**  
**NATIONAL WEBINAR ON**  
**"Patents-Tips & Tricks"**  
 Organized by Department of MCA



**Dr. Madhan Kumar Srinivasan**  
 Accenture Prolific Inventor | Associate Vice-President & Lead-Cloud Analytics,  
 ICI Innovation Centre, Accenture, Bengaluru.

For Registration, Visit:  
<https://forms.gle/w9r2CWnHDEaJ3HcP6>



Scan Me

4 - JULY - 2020  
 2:00 PM – 4:00 PM

**FREE**

**Organisers :**  
**Dr. V. R. Manjunath,**  
 Principal.  
**Dr. Manjula Sanjay Koti,**  
 Prof. & Head—MCA,  
 CSI-SBC.  
**Co-ordinator :**  
**Mrs. R. Latha**  
 Associate Professor.

e-Certificate will be provided to all the participants

## What Can Be Patented?

- **Must be:**
  - Novel: not previously known or used by others
  - Useful: have a known use or produce a concrete and tangible result
  - Non-obvious:
    - Is it obvious to PHOSITA (Person Having Ordinary Skill In The Art)?
    - Can not be found in a single or reasonable combination of patents that would yield a predictable result
- **Can not be:**
  - Idea
  - Law of Nature
  - Scientific Principle

## STUDENT FOCUS

### Student Achievements:

Rachana G of third semester MCA won first place in logo completion held by Women –in-Tech a club of Sir MVIT on 9<sup>th</sup> November 2019.



**First prize in logo competition**

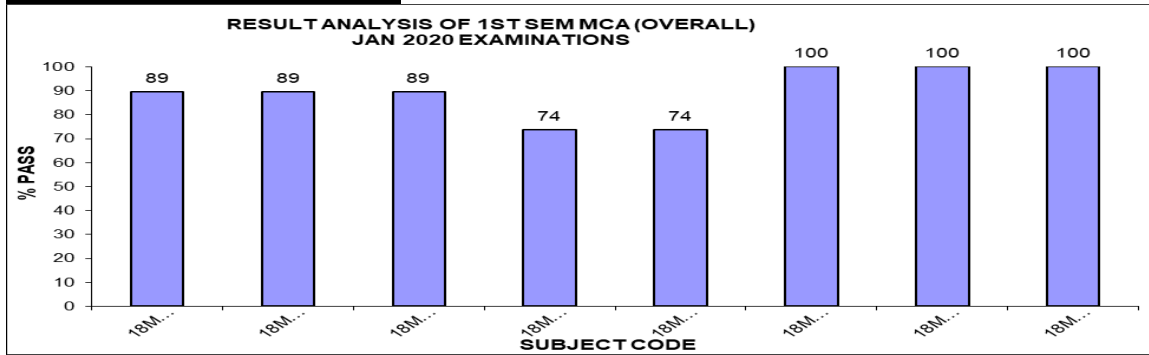
N.S. Akshay Bharadwaj, Muthuramalingam B, published paper in International Research Journal of Engineering and Technology (IRJET) during 2019.

### Courses completed by the students during lock down

The students of II<sup>nd</sup> and IV<sup>th</sup> sem MCA have completed online certification course in Coursera, Udemy, TCS and Google.

# RESULTS

## 1<sup>st</sup> Semester Toppers:



SINDHU D R  
1MV19MCA14 – 81.38%

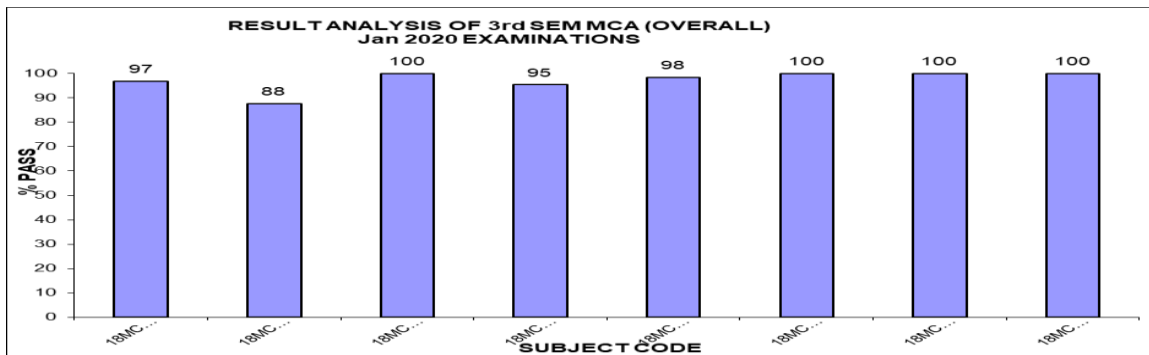


TIYASHA DAS GUPTA  
1MV19MCA17 – 79.88%



SHIVARAMAKRISHNA M  
1MV19MCA13 – 79.38%

## 3<sup>rd</sup> Semester Toppers:







**BINDU B**  
1MV19MCA58 – 85.50%

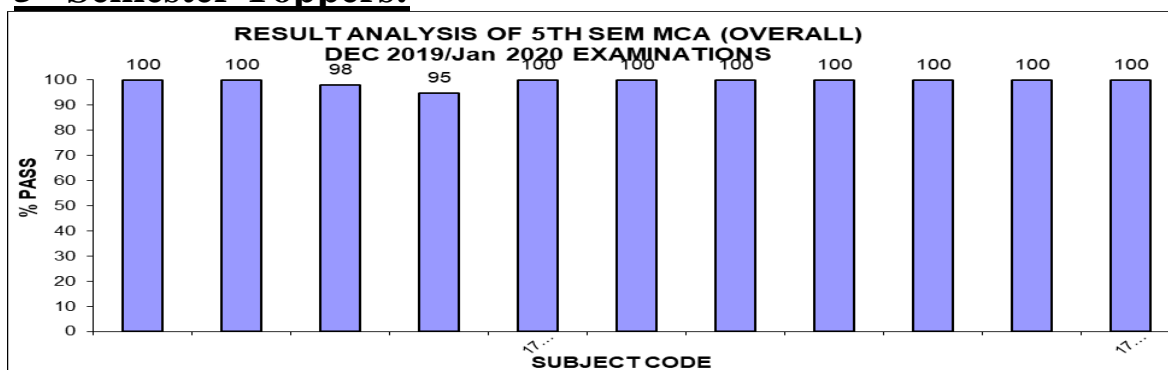


**PRATHIMA A**  
1MV19MCA57 – 85.25%



**THEERTHESH T P**  
1MV18MCA09 – 84.75%

## 5<sup>th</sup> Semester Toppers:



**PRANAVI B V**  
1MV17MCA07 – 81.88%



**ARUNA H**  
1MV18MCA53 – 81.06%

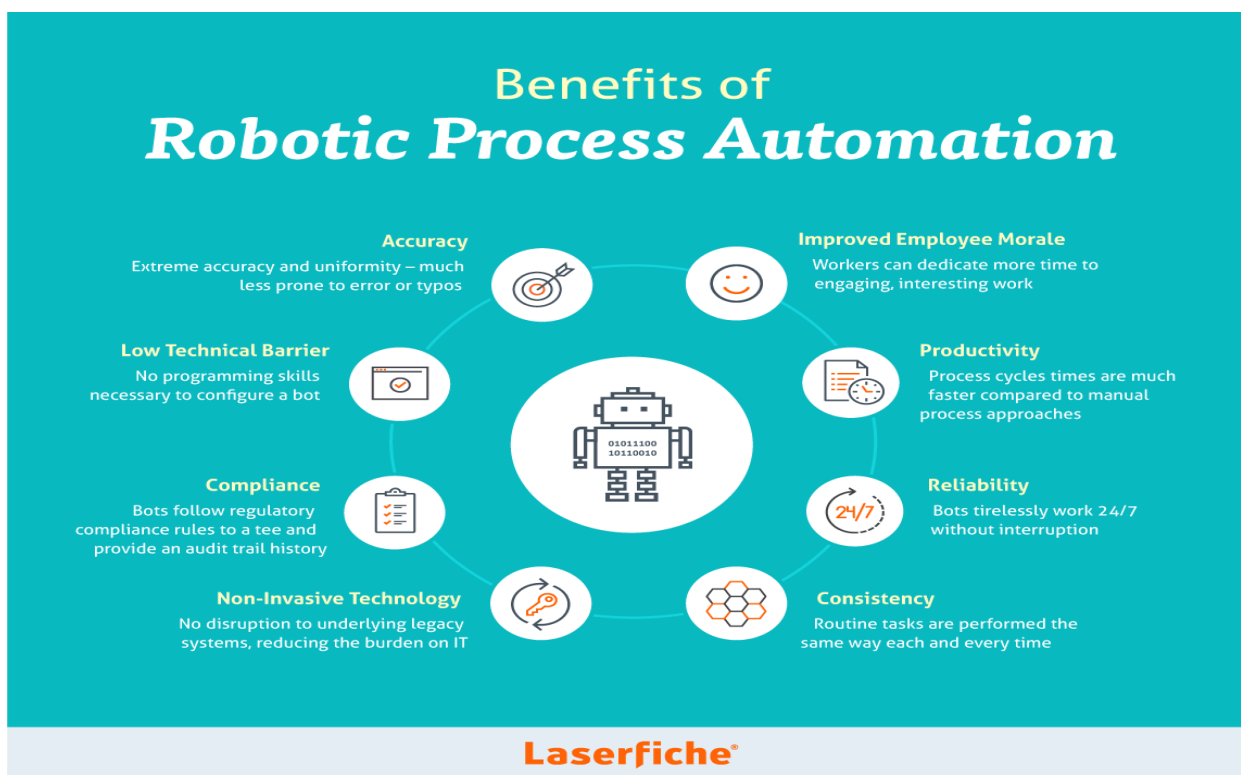


**VAISHNAVI RAGHUPATI SHANBHAG**  
1MV18MCA79 – 80.82%

# RPA- Robotic Process Automation

Robotic process automation is the use of specialized computer programs, known as software robots, to automate and standardize repeatable business processes. Imagine a robot sitting in front of a computer looking at the same applications and performing the same keystrokes as a person would. While robotic process automation does not involve any form of physical robots, software robots mimic human activities by interacting with applications in the same way that a person does. Working as a virtual business assistant, bots complete tedious tasks, freeing up time for employees to concentrate on more engaging, revenue-generating tasks. Part of the beauty of robotic process automation technology is that it offers even non-technical employees the tools to configure their own software robots to solve automation challenges.

## Benefits of RPA



As a user-friendly and cost-effective tool, robotic process automation provides a number of advantages that are drawing interest from organizations across many industries.

The business benefits of RPA include:

- **Low technical barriers:** Programming skills are not necessary to configure a software robot. As a primarily code-free technology, any non-technical staff can use a drag and drop process designer to set up a bot—or even record their own steps to automate a process through a process recorder feature.
- **Increased accuracy:** Bots are extremely accurate and consistent – they are much less prone to making mistakes or typos than a human worker. This can apply to common processes such as provisioning or de-provisioning user accounts, copying information from one system to another, onboarding and off-boarding employees or populating a form based on information from another system.

- Meet regulatory compliance standards: Bots only follow the instructions they have been configured to follow and provide an audit trail history for each step. Bots can also play back their past actions in case parts of a process need review. The controlled nature of bot work makes them suited to meeting even the strictest compliance standards.
- No interruption of work: Operations can be performed 24/7 as software bots can work tirelessly and autonomously without requiring staff to manually trigger bots to initiate business processes.
- Existing systems remain in place: Unlike traditional automation initiatives that may require extensive developer resources to integrate across multiple applications, RPA involves no disruption to underlying systems. Robots work across the presentation layer of existing applications just as a person does. This is especially useful for legacy systems, where APIs may not be immediately available, or in situations where organizations do not have the resources to develop a deep level of integration with existing applications.
- Improved employee morale and employee experience: Employees will have more time to invest their talents in more engaging and strategic work. Bots enable workers to offload manual tasks like filling out forms, data entry and looking up information from websites, so workers can focus on strategic, revenue-producing activities.
- Increased productivity: Process cycle times are more efficient and can be completed at a faster speed compared to manual processes.

Compiled By, Ms. Latha. R, Associate professor, Dept of MCA.

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### Being motivated during COVID-19 Pandemic

The greatest crisis of current time is COVID-19. This is a difficult time for all of us as we hear about spread of COVID-19 from all over the world, through television, social media, newspapers, family and friends and other sources. The most common emotion faced by all is Fear. It makes us anxious, panicky and can even possibly make us think, say or do things that we might not consider appropriate under normal circumstances. Along with its high infectivity and fatality rates, the 2019 Corona Virus Disease (COVID-19) has caused universal psychosocial impact by causing mass hysteria, economic burden and financial losses. Mass fear of COVID-19, termed as “coronaphobia”, has generated a plethora of psychiatric manifestations across the different strata of the society. The coronavirus pandemic is an epidemiological and psychological crisis.



There should be something in this crisis situation that keeps us going. This something is “**Motivation**”. Motivation: just one word, but yet so meaningful. We are basically surrounded by unknowns, uncertainty, and decisions of all types that will inevitably leave a mark in the way we drive things, short to long term. How we keep ourselves **motivated** during this period is one

of the key factors that in the end, when everything goes back to normal, will make all the difference.

*“Motivation is a fire from within. If someone else tries to light that fire under you, chances are it will burn very briefly.”*

*- Stephen R Covey*

As social distancing and stay-at-home orders are extended throughout the country, many graduate students are coming to terms with the fact that we will be working from home and learning remotely for quite some time. The changing reality of this pandemic makes focusing on research and classes extremely difficult for many, but it also makes it clear that we will be in this “new normal” for the long haul. Below are some simple tips for staying motivated during this time.

#### 1. Set small daily goals.

It is important to recognize that these aren't normal times, and your productivity is likely not at its peak right now. That's okay. Setting daily goals can help you to make your day as productive as possible, but be realistic with the goals you set. Big goals may seem insurmountable right now; instead, focus on small goals for each day that you can cross off your list. Setting smaller goals that can feasibly be tackled in a day can help you stay on track. Try to make a short list of manageable tasks to get through every day.

#### 2. Carve out time in your day for work and for relaxation.

Working from home can make it much harder to get through your daily tasks when the temptation of Netflix is quite literally right in front of you 24/7. For others, working from home can actually lead to a serious case of overworking now that we are no longer dependent on an office or lab space to restrict work hours. Scheduling when you will work and when you will relax can help you to manage a healthy work-life balance at home.

#### 3. Try pomodoro study sessions — social distance style.

For many graduate students, working from campus provides time to socialize with peers in the office or the lab. Being surrounded by others doing work can be very motivating, and so working from home can be hard when you're sitting alone at a desk. Thanks to platforms like Zoom or Face Time, you can still work with friends virtually! Try a pomodoro study session with your friends via Zoom. Pomodoro sessions, based on the Pomodoro Technique, prioritize working for 25 minute bursts with five minute breaks in between.

#### 4. Schedule virtual get-togethers with friends.

Social distancing can be the hardest aspect of this pandemic for many people. Not getting to spend time with friends can be emotionally taxing. However, social distancing does not mean you have to totally say goodbye to a social life. Schedule virtual get-togethers with your friends, and have them often!

#### 5. Prioritize your mental health.

Staying motivated can be near impossible when your mind is filled with anxieties. No work technique is going to keep you motivated when stress is unmanageable, and there is a lot to be stressed about right now. Taking care of yourself can help you to better manage your mental health during this time, so make sure you aren't letting the basics fall through the cracks. Try to move a bit each day with a walk around your block or an online yoga class. Take time to eat balanced meals, and try not to work through lunch - step away from your laptop



and take a lunch break. Maintain a normal sleep schedule, and aim to get at least eight hours of sleep a night. Allow yourself time to enjoy TV and social media, but try to reduce how much time you spend listening to pandemic news. Limit yourself to reading pandemic-related news for only a short amount of time in the morning, and then leave it alone. Stay informed from reputable sources, but avoid getting wrapped up in constant news coverage that will only heighten anxiety.

6. Be okay with not being highly productive right now.

Some days you may not have much ability to focus at all, and that's to be expected! Nobody's life is normal right now. You may find that you have good days where you're highly motivated to get through work and bad days where your motivation is nowhere to be found. When work seems impossible, prioritize what you must get done that day — what has a deadline tomorrow, what emails need to be sent before the evening? Get through high priority tasks, and then let yourself have the rest of the day off. And don't beat yourself up for not getting through your entire to-do list! It's okay to expect less from yourself right now.

*As this new normal sets in, everybody is learning how to best adjust to working from home and being isolated from friends and family. Staying motivated can be tricky, but you can help make it a bit easier for yourself by setting realistic schedules and taking time to care for yourself. Though this pandemic can feel like it will be endless, it will eventually pass. Staying motivated can help refocus our attention away from these stressful changes and towards a more hopeful future.*

-Compiled By, Ms. Sneha Bharti, Assistant professor, Dept of MCA.

## ***GASIFICATION THE WASTE TO ENERGY SOLUTION***

### ***- turning trash to fuel***

Gasification is a process that transforms a carbon based material such as Municipal Solid Waste (MSW) or industrial waste or biomass, into other forms of energy without actually burning it. Gasification converts the solid and liquid waste materials into a usable synthesis gas or syngas through a chemical reaction. This is done in a low oxygen environment and causes material breakdown at the molecular level.

There is an increasing thrust to reduce, reuse and recycle the waste (3R's approach). Plastics, glass, paper, and metals are more attractive materials for reuse and recycling purposes. Energy generation from residual waste provides an excellent waste management solution. These mixed waste streams, commonly known as residual waste, are heterogeneous, very complex to recycle and are well suited for waste-to-energy application. After the energy conversion, the remaining waste is reduced to a tiny fraction of the original volume, and the rest of it can be easily disposed in the landfills. Faced with the costly problem of waste disposal and the need for more energy, a growing number of countries are turning to gasification. Gasification is the only option which a time-tested and environmentally-sound way of converting the energy in MSW into useful multimodal products such as heat, power, cooling, gaseous fuels electricity, fertilizers, transportation fuels and chemicals. Efforts are made to manage the waste during its life cycle to maximize the resource efficiency

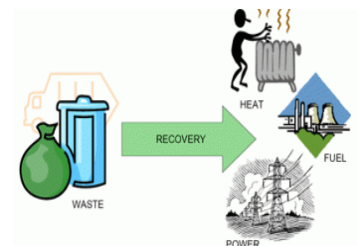


of waste feedstocks. A waste management activity involves prevention of waste generation, reduce, reuse and recycle, as well as conversion to energy and disposal of remaining residues throughout the waste life cycle.

Source	Type	Composition
Municipal Solid Waste (MSW)	Residential	Food wastes, paper, cardboard, plastics, textiles, leather, yard wastes, wood, glass, metals, ashes, special wastes (e.g., bulky items, consumer electronics, white goods, batteries, oil, tires), household hazardous wastes, e-waste.
	Industrial	Housekeeping wastes, packaging, food wastes, wood, steel, concrete, bricks, ashes, hazardous wastes.
	Commercial & institutional	Paper, cardboard, plastics, wood, food wastes, glass, metals, special wastes, hazardous wastes, e-waste.
	Construction & demolition	Wood, steel, concrete, soil, bricks, tiles, glass, plastics, insulation, hazardous waste.
	Municipal services	Street sweepings, landscape & tree trimmings, sludge, wastes from recreational areas.
Process waste		Scrap materials, off-specification products, slag, tailings, topsoil, waste rock, process water & chemicals.
Medical waste		Infectious wastes (bandages, gloves, cultures, swabs, blood & bodily fluids), hazardous wastes (sharps, instruments, chemicals), radioactive wastes, pharmaceutical wastes.
Agricultural waste		Spoiled food wastes, rice husks, cotton stalks, coconut shells, pesticides, animal excreta, soiled water, silage effluent, plastic, scrap machinery, veterinary medicines.

Gasification provides the carbon-based materials (feedstock) flexibility with varying qualities. It enables to produce power efficiently with an excellent ability to integrate with the existing power production equipment like steam cycle, gas turbines, and gas engines. On average, conventional waste-to-energy plants that use mass-burn incineration can convert one ton of MSW to about 550 kilowatt-hours of electricity. With gasification technology, one ton of MSW can be used to produce up to 1,000 kilowatt-hours of electricity.

The traditional methods of waste disposal are increasingly becoming less viable. In addition to consuming valuable land for waste disposal, decomposing MSW generates methane, a greenhouse gas, and the leaching wastes may also pose a threat to surface water and groundwater and have an impact on the environment. The production of syngas makes gasification different from incineration. The syngas produced by gasification can be turned into higher value commercial products such as transportation fuels, chemicals, fertilizers, and can even substitute natural gas. Incineration cannot achieve this. One of the important advantages of gasification is that the syngas can be cleaned of contaminants prior to its use. In high-temperature gasification, the ash actually flows from the gasifier in a molten form, where it is quench-cooled, forming a glassy, non-leachable slag that can be used for making cement, roofing shingles, as an asphalt filler or for sandblasting. Some gasifiers are designed to recover melted metals in a separate stream.



Pre-processing systems are added up-front to accomplish the extraction of metals, glass and inorganic materials, resulting in the increased recycling and utilization of materials. Some gasifiers require the shredding, drying and sizing of the feedstock before it is sent into the gasifier. A wide range of plastics cannot be recycled further, and such plastics can be excellent high energy feedstock for gasification. Gasification enhances the recycling programs. Much more efforts are needed to minimize the environmental impacts of residual waste disposal. Gasification can help the world both manage its wastes and produce the energy and products needed to foster economic growth.

## **Role of Information Technology during COVID-19 Pandemic**

COVID-19 is unlike any other crisis which is impacting the entire world. Governments across the world are trying to ensure the safety of their citizens and provide support to people affected. In spite of fast spread, people across the world are putting up a brave fight and using new-age technologies to manoeuvre this new situation. These technologies are not only helping us fight the pandemic but also help us in manage our tasks.

This COVID-19 crisis has made one thing clear to everyone, that technology is a critical component in our efforts to live through a pandemic. The coronavirus outbreak is a unique situation that none of us have never experienced. But we are fortunate that, we are far better equipped to deal with it in 2020 than ten or twenty years ago.

A major challenge during this pandemic is not being able to work in the same manner as before. Businesses have quickly adopted work-from-home policies, using online meeting softwares and collaboration platforms to ensure work by their employees and continue operating business as usual.

Smartphones are playing a crucial role in getting the day to day essential requirements and minimizing exposure to the people. Delivery apps are offering contactless delivery, whereby delivery executives drop essentials off at a specific point or at your doorstep without any physical contact. Mobile payment apps are helping in making the bill payments reducing the threat of transmission through paper money.

This Pandemic has disrupted daily life and reduced social interaction. Video conferencing is leading millions of people to meet and connect online instead. Families and friends are now catching up and socializing virtually. Even organizations are on-boarding new employees through digital meeting platforms.

Location Tracking is helpful in tracking people's whereabouts through the location information provided by their phones. It has been vital to identify the movements of an infected person and give alert to others.

Telehealth facility was not a preferred option by patients for many years. Lately, more health care providers have expedited the adoption of telehealth and been making doctors available to their clients online, to protect their health and prevent unnecessary visits to the clinic.

Education is one important sector which has a huge impact because of the pandemic. Thanks to the technology, from students pursuing higher education to small kids were engaged with their academic activities using various forms of virtual connect with their teachers and institutions. Also there is an influx in webinars, which allow people to not only learn something new, but also socialize.

Technology, especially IT has always been debated by the public for its pros and cons. This COVID-19 pandemic has made the entire population realize the importance of technology and accept that this digital transformation is a blessing.

**-Lakshmi K, Assoc. Prof., Dept. of MCA**

# ***Pain of Earth...***



*Hi COvid-19,*

I am writing this note with a heart full of Sorrow and eyes filled with tears.

Being a earth I was born and brought up in the Gods Creation.As i Grew up gradually,many living creatures such as Nature,Humanbeings,Animals and Technology started taking shelter on me.Iam glad I could offer shelter to many such creatures.They used to play on me,love me and our relationship was more beautiful.

My life was so beautiful and joyful but like other stories,mine also came to a tragic end.A few days ago,a group of some anormous virus groups entered into the world and began to uproot my friends(Humanbeings,Economy,Nature)one after the other.

This sight of the lives and creatures running with fearness to save their lives.It was heart breaking to see the once lush world left barren.

Finally its my chance to be uprooted tomorrow.but before that i cant to make an appeal to all the viruses,which is the main Intension of this note.

Please help us,Save us we demand you nothing but a little bit of Sympathy.Iam the reason you can acts on me to Vanish my Friends.What would happen if me and you were uprooted? No Nature,No love,No Bondings,No Emotions,No sadness,remains only a land full of deadbodies,and Economical Imbalance.If not Myself,please think of my friends."can you provide them a free atmosphere?" "can they lead their lives happily?".

Iam writing this not for sympathy,but to create awareness among viruses.Before my turn comes tomorrow."

*PRESENT SITUATION IS LIKE A MURDERING BY AN ANORMOUS ENEMY.*

*WISHING YOU ALL A HAPPY AND GOOD LIFE.*

Yours,  
*Feared Earth.*

----- Shivaramakrishna MJ,MCA-1st year



# MUSIC

Music is a feeling.....

Music is not just a couple of words arranged to make pleasant combinations of sounds, it's a different language...a language that's there inside every person...It's a language that gets both, the singer and listener so involved that they forget their surroundings. When we listen to music, we are in a world of our own...created by music. Music has no boundaries...It can be sung by an Indian, American, African – anyone who enjoys and appreciates music. It can be of any genre – rock, pop, folk, and melody...or any language – Kannada, English, Hindi, Spanish...When it comes to music, the horizons are as vast as the universe! Music has the power to connect the world...to connect people from across different continents, countries, states, cities, districts who speak different languages, have different cultures, follows different religions. Music can break all enmity, join any broken bond...and heal the world...

Music can play an imperative role in our life – a person cannot always be judged by his mannerisms or speaking skills, but his choice of songs can speak a lot about a person. Each person will have their own collection of favourite songs. But the song dearest to them can keep changing with changes in their life...

Life never fails to surprise us...and so does music. I am sure there's a song for each one of you out there...

Like I said, the right song can do a lot to you...

It can make you cry like you have never cried before    It can make you the happiest person on earth

It can make you fall in love... It can clear your mind  
It can depress you and console you at the same time... And also forget and forgive...

There is no end to what music can make you feel... Trust me...

Becz I've felt it... And you will too...

Sahana Sajjal 6<sup>th</sup> Sem, MCA

## ALUMNI SPEAK'S

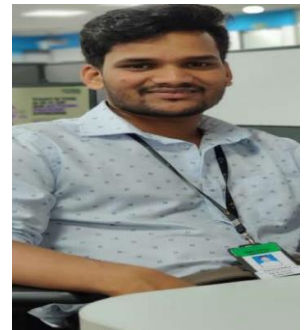
Proud MVIT'ian, The life journey of 3 years at MCA, MVIT is always special and cherish able. My college days are unforgettable and in fact those days are the happiest & best days in my life. My college gifted me infinite love, lessons from my teachers, life savior friends for my life. it always felt like a family, another home, which helped in overall growth. I am thankful to all the faculty members of the College for their continuous efforts and support. Apart from excellent academic experience, I also gained the confidence, experience to face anything in my life's journey. The can still feel the moments of Ayyuktha-2k18, Stone Bench stories, HOD room lecturers, Class room gossips and Cricket Ground Fun.



Ahead of all this the opportunities provided for the placements, internships are amazing. Even today department, is with me with all the chances of seminars, meets and workshops. I would like to thank our beloved HOD, Dr. Manjula Sanjay Koti for all the support, guidance and experience shared with us. Under your leadership MCA Department reframed and progressing tremendously. Wishing the same spirit, vision and actions forever. Once again thank you Department of MCA, all the teaching and non-teaching faculties for the best days of my life. Will miss those golden days. MVIT'ian Forever.

***Shananth Kumar N***

My College days are unforgettable and in fact those days are the most happiest & fruitful days in my life. My experience in Sir MVIT was just amazing. The journey of 3 years at MCA in SMVIT is special and those memories will be cherished for lifetime, I would like to thank HOD, Dr. Manjula Sanjay Koti for all the guidance and experience shared and molded our personality and clarified our vision of the future, Under your guidance we did our first Inter-College festival Avyuktha-2k18, from that we gained confidence, skills to manage things in life in proper manner. I got infinite love & lessons from my teachers, these teachers made me do "Work Hard" for the way to success. Miss those days of SMVIT. Just want to thank to all the teaching and non-teaching faculties of MCA. I am proud to be an MVITian...



*Veeranna D Mallur*

## PLACEMENTS

All our students are undergoing internship in reputed IT firms & most of them are placed in top MNC's working on various technologies like Cloud Analytics, Social Media Mining & Mobile Computing.



# 2017-2020 Batch



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