



Progressive Education Society's  
**Modern College of Arts,  
Science & Commerce**



**(Autonomous)**

Shivajinagar, Pune 5

And

Quality Improvement Program of  
**Savitribai Phule Pune University**

Pune 7



Organize

State Level Seminar on

# **E-content Development**

on 17<sup>th</sup> & 18<sup>th</sup> January 2020

# **PROCEEDINGS**





## About Modern College of Arts, Science and Commerce, Pune-5

*Progressive Education Society's* Modern College of Arts, Science and Commerce (Autonomous), Shivajinagar, Pune-05, established in 1970, is a multi-faculty, co-educational Higher Education Institute, permanently affiliated to Savitribai Phule Pune University (formerly University of Pune). The college is known to be a premier institute of Progressive Education Society. Our College imparts education mainly in the Arts, Science and Commerce streams and is presently offering 25 UG, 19 PG courses and 8 Ph.D. courses. One of the UG courses, viz. B.Sc. (Blended) Bio-Sciences is run in collaboration with University of Melbourne, Australia, IISER, Pune and S. P. Pune University, Pune.

*We are privileged to mention below some honors to the credit of the college:*

- 1) Paramarsh Scheme by UGC, 2019
- 2) **Autonomous Status by UGC, 2019**
- 3) Best College award (Sports), by SPPU, Pune, 2019.
- 4) **DST-FIST Scheme, 2019.**
- 5) 'Best Accessible Website Award' by Ministry of Social Justice and Empowerment, Govt. of India, 2018.
- 6) **B.Voc. (Fashion Designing and Tailoring) Scheme of UGC, 2018.**
- 7) Best College award (Sports), by SPPU, Pune, 2018.
- 8) **'A+' Grade with CGPA 3.51, by NAAC, 2017.**
- 9) College with Potential for Excellence (CPE) status, by UGC, 2017.
- 10) **Best College Award (Sports), by SPPU, Pune, 2017.**
- 11) Best College Award (Sports) by SPPU, Pune, 2016.
- 12) **Community College Scheme by UGC, 2015.**
- 13) ISO 9001:2008 Certification, BSI, 2015.
- 14) **Best Principal award by SPPU, Pune, 2014.**
- 15) Best College award (NSS) by SPPU, Pune, 2014.
- 16) **Star College Scheme, by DBT, Govt. of India, 2013.**
- 17) DST-FIST Scheme, 2012.
- 18) **UGC-BSR Scheme, 2012.**
- 19) College with Potential for Excellence (CPE) status, by UGC, 2011.
- 20) **'A' Grade with 3.15 CGPA, by NAAC, 2010.**
- 21) Best College Award by SPPU, Pune, 2008.

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Proceedings of  
**State level seminar on E-content development**

Organized by

**Department of Animation  
And  
Center for e-content Development**

*Progressive Education Society's,*  
**Modern College of Arts, Science and Commerce,**  
Shivajinagar, Pune – 411005, Maharashtra, India

in association with

**Savitribai Phule Pune University, Pune -7**



&



**2020**

# About the Conference

Information technology and the Internet are major drivers of research, innovation, growth and social change. E-content includes E-learning is an inclusive term that numerous types of media that deliver text, audio, describes educational technology that images, animation, and streaming video, and electronically or technologically supports learning includes technology applications and processes and teaching. E-content requires huge amounts of creativity both at 'information' level as well as the 'technology' level.

As per the UGC (University Grants Commission, India) guidelines of e-content development needs the following categories viz., (i) home; (ii) objectives; (iii) subject mapping; (iv) summary; (v) text with pictures & animations; (vi) video and audio; (vii) assignments, quiz & tutorial; (viii) references, glossary & links; (ix) case studies; (x) FAQ"s; (xi) download; (xii) blog and (xiii) contact. These categories are arranged sequentially by subject experts along with technical supporters and to develop the e-content materials.

e-learning is a process and E-content is a product. e-content is generally designed to guide students through lot of information in a specific task. An e-content package can be used as a teacher in the virtual classroom situations. The quality of learning depends not only on the form of how the process is carried out but also on what content is taught and how the content is presented. This approach of teaching has become an answer to the complicated problems and un-identified areas.

e-content is facilitating to the teacher to effective manner. It is enhancing the learner knowledge level which leads to creative thinking and it gives the future ideas on the basis of given links, and references.

In e-Content development process needs several aspects. Content should follow appropriate instructional design methodology in order to assure meeting of learning objectives and expected outcomes. The effort spent in content preparation should be re-usable across various learning management systems. All the e-content materials focused on (a) Cognitive perspective: it focuses on the cognitive processes involved in learning as well as how the brain works; (b) Emotional perspective: it focuses on the emotional aspects of learning, like motivation, engagement, fun, etc.; (c) Behavioural perspective: it focuses on the skills and behavioural outcomes of the learning process, role-playing, settings of job and (d) Contextual perspective: it focuses on the environmental and social aspects which can stimulate learning.

The organization of the State Level Seminar on –e-content Development is solely based on the immense use of e-content development in the process of effective use of teaching and learning. It is the first and most important step taken towards the process of e-learning to follow the objectives laid down by UGC, New Delhi.

The objectives of the seminar are :

- 1.To learn and understand the flow of e-content development
- 2.To learn the techniques of e-content development in the teaching learning process
- 3.To get hands-on experience of development of e-content development
- 4.To get the knowledge of publicity of developed e-content

The college is inaugurating the Center for e-Content Development in this seminar through which the in-house e-content development facility is created for the staff members and also to provide the consultancy to the outside teachers.

Through this seminar, we aim to promote learner centric pedagogy that uses e-learning methods, to develop higher order learning objectives within students. The Seminar will provide a unique platform to learn, plan, design and develop student centric e-course material that facilitates e-learning and e-content development along with Modern Teaching Pedagogy

Our technical program is rich and varied with 1 keynote speech, 5 technical sessions, 1 movie screening session, 1 hands-on Session, 1 demo Session and around 120 participants.. We also expect to provide technical demonstrations, and numerous opportunities for informal networking. The sessions in the conference include e-content production pipeline, Content Development, Animation Techniques, Sound Editing, Video Creation, Digital Editing, Post Production, role of encryption of e-content in distribution and broadcasting of e-content.

**Organizing Team,  
State Level Seminar on e-content Development, 2019-20**

# Advisory Committee

1. **Prof. Dr. G.R. Ekbote,**  
*Chairman , P. E. Society, Pune- 5*
2. **Prof. S.S. Deshmukh,**  
*Secretary, P. E. Society, Pune- 5*
3. **Prof. Mrs.J.G. Ekbote,**  
*Chairperson, CDC, MCASC, Pune-5*
3. **Dr. R. S. Zunjarrao,**  
*Principal, MCASC, Pune -5*
4. **Dr. A. D. Shaligram,**  
*Dean, Science and Technology, S. P. Pune University, Pune*
5. **Prof. A. G. Gosavi,**  
*Ex-Principal, MCASC, Pune-5*
6. **Dr. S. Y. Paranjape,**  
*Ex-Principal, MCASC, Pune-5*
8. **Dr. Apoorva Palkar,**  
*Director, E- content Development center, SPPU, Pune-7*
7. **Mr. Datta Mandale,**  
*BMS Solutions, LLC, Dubai, UAE*

## Chairman's Message



**Prof. Dr. Gajanan R. Ekbote,**  
M.S. M.N.A.M.S.  
Chairman, Progressive Education Society,  
Pune-5, India.

Progressive Education Society is one of the leading educational institutions in Maharashtra. P.E Society was founded by a well-known teacher Late Shri. Shankarrao Kanitkar along with his colleagues in year 1934. The school, colleges, management and computer institutes run by the society have earned a reputation as institutions imparting quality education all over Maharashtra. P.E Society runs 58 educational institutions which include pre-Primary, Primary, Secondary, Higher Secondary School and Arts, Science and Commerce Colleges, Engineering College, College of Pharmacy, Institute of Management, Institute of Computer Science, Information Technology Centre, and Law College.

Progressive Education Society's Modern College of Arts, Science and Commerce, Shivajinagar, Pune -5 was established in the year 1970 as the first senior college of Progressive Education Society. Modern college has several achievements like 'Best College Award' by Savitribai Phule Pune University in 2008, NAAC Accreditation 'A' grade in 2010, CPE status of UGC in 2011, Best College award, NSS by SPPU, BSR funds from UGC, FIST (Funds for Improvement of Science & Technology Infrastructure) grants from DST and STAR college scheme from DBT in 2013. Recently in 2015, UGC sanctioned 'Community College Scheme' to this college. The college has been conferred 'Best College Award (Sports) for the academic year 2015-16, by Savitribai Phule Pune University. The record of achievements of the college clearly indicates that the college has firmly established itself as a '**Modern**' and '**Progressive**' educational institution as per the vision of the founder members of P. E. Society, Late Shri. Shankarraoji Kanitkar and Late Shri. V. T. Tatke. As India is at the cusp of witnessing a new era in Space Exploration, it is important to organize an '**State level seminar on E-content development**'. I congratulate the Principal of Modern College, organizing committee wish them a grand success.

**Prof. Dr. Gajanan R. Ekbote,**  
M.S. M.N.A.M.S.  
Chairman,  
Business Council,  
P. E. Society, Shivajinagar, Pune -5

# Principal's Message



**Dr. Rajendra S. Zunjarrao,**  
Principal, Modern College  
of Arts, Science and Commerce,  
Shivajinagar, Pune- 5

**Modern College of Arts, Science and Commerce, (MCASC) Shivajinagar, Pune-5** was established in 1970 by **Progressive Education Society**, Pune, in Maharashtra, founded in 1934. Based on the pedestal '**DnyanmayoBhav**' meaning '**Be knowledge Incarnate**' as envisaged by the visionaries who then established the PES, Pune, the entire functioning of the college rests on two key words, 'Modern' and 'Progressive', in both letter and spirit.

The college is permanently affiliated to SavitribaiPhule Pune University (SPPU), Pune (formerly University of Pune). The college provides various academic facilities to attain Bachelor's and Master's degrees in the fields of Arts, Science, Commerce, Computer Science, Computer Application, Business Administration, Biotechnology and Computer Animation. It has seven Post Graduate Research Centres approved by SPPU. The college not only ensures the academic development of the students but also provides them with opportunities to prove themselves by undertaking research, extra-curricular and co-curricular activities. Moreover, in the field of sports the college has recently made a name for itself. The number of students enrolled during this academic year is more than 9500, and it is prestigious that there are 83 International students admitted in this year. I am proud to mention that the college has established the use of ICT in administration, teaching-learning process. A 'Digital Record Room' and 'Digital Library' are established to benefit student's services. Today, our country is witnessing new horizons and path breaking endeavors in Space exploration. Hence, it is important to arrange a conference to discuss the new strategies to incorporate subjects like Astrobiology in the syllabus. We are happy to organize an '**State level seminar on E-content development**'. to provide a multinational platform for discussion of Public engagement, Education and Outreach. I hope the deliberations of the conference will be useful to the delegates and the participants. I congratulate Prof. Anjali Sardesai, Head, Department of Animation, her team of the Department and the organizing team and wish them all the best for the conference.

**Dr. Rajendra S. Zunjarrao**  
Principal, Modern College of Arts, Science and Commerce, Pune-5.  
Convenor, State level seminar, 2020.



## HOD's Message



**Dr. Anjali S. Sardesai,**  
Head, Department of Animation.

The need of an hour is excellence in every field of operation and particularly “Information Technology”. Realizing this need, the Department of Animation, Modern College, Pune-05 is engaged in molding tomorrow’s information and communication technologists and animators today. The Department of Animation is established in academic year 2019-20 as a separate department. The course run by the department is B.Sc. (Animation), which is a three year degree course started by Savitribai Phule Pune University, Pune in the academic year 2012-13. Modern College started the course in the year 2013-14. Since the first batch passed out of B.Sc. Animation, it’s a history to achieve 100% result and 100% placement till academic year 2018-19. Our students are in the field of Animation. Their entry for the course is on the basis of merit. At the undergraduate level their performance at HSC (Science) with English with any three science subjects such as Physics, Chemistry, Biology, Mathematics, Geography, biology, etc. is the criteria for the admission. The Department is planning to start M.Sc. Animation, 2 years Post Graduate Degree course from the academic year 2020-21 under Autonomous status. UGS NSDC has sanctioned B.Voc. Animator ( 3D Animation and VFX), 3 years degree course which is going to be started from academic year 2020-21. The Department also runs one add-on course Graphics Design and Animation.

We are proud that the students opt for our centre with highest priority. As a result, the students of Modern College, Shivajinagar, Pune-5 are at the forefront in the Animation field. During their graduate studies they undertake the projects which are relevant to the current Industrial needs. These projects have helped students to apply their theoretical knowledge to the real life situation. They develop portfolio, shorel to showcase their expertise gained in three years of degree course. Through practical demonstrations, Guest Lectures, Group Discussions etc, we bring the latest in Animation technology to our students. Co-curricular activities sharpen their minds and other skills that help in overall development. The Department organizes “Aura”, the exhibition based on the creative ideas of students in which the students exhibit their work in the form of origami, clay models, short films, We have a dedicated team of teachers, experts and well equipped laboratories. The young and highly qualified team of faculty members spare no efforts to keep the students well motivated and in updating their knowledge, creativity and skills. The students are also reciprocating by their high achievements in academic performance.

### **Salient Features of the Department**

- Started B.Sc. Animation course in 2012-13.
- One of the pioneer department in the field of Animation.
- Representation of staff members of various Board of Studies.
- 100% placement
- Well equipped Lab with ultra modern facilities.
- Young, experienced, qualified and highly motivated staff.
- Wi-Fi enabled department.
- Strong and active alumni support.
- ICT enabled teaching learning infrastructure with digitally equipped classrooms.

The department has contributed in the establishment of Modern Media Station, a live you tube channel to broadcast all the events organized in the college. The Center for e-content development which is getting inaugurated on the occasion of State Level Seminar in e-content Development is a major contribution of Animation Department.

The current era is a technology era which must get influenced in the field like education teaching learning. Use of technology in teaching pedagogy, online teaching, e-learning process, e-content development are the key areas which are now a days promoted by Govet. Of India through MHRD's MOOC and SWAYAM courses. Development of e-content and thereby promoting virtual classroom approach is the objective of the college management. One of the steps towards this aim is the organization of a state level seminar on e-content development for teachers, staff members especially. We hope that the participants will be able to receive the knowledge to use the technology, use of ICT in teaching-learning process and development of e-content.



*Team of Animation Department*

## Advisory committee member



**Dr Arvind Shaligram**

*Professor and Head Department of Electronic Science*

- ★ Professor and Head, Department of Electronic Science at Savitribai Phule Pune University. Presently he is working as Director Examination and Evaluation, coordinator of Design Innovation Centre and Incharge Director of Educational Multimedia Research Centre (EMMRC). He also worked as Dean of Science and Technology faculty and Officiating Registrar of the Savitribai Phule Pune University for more than a year each.
- ★ Main fields of research interest are Embedded systems and VLSI design, Nanoelectronics, Optoelectronic sensors and systems, LED Lighting systems performance and reliability and Wireless Sensor Networks
- ★ Published more than 31 books (5 international), 565 research papers with 881 Citations, out of which 193 papers are in National/ International Journals and 45 Invited talks.
- ★ He has been a IEEE member for 20 years.
- ★ He guided 38 students for Ph.D. and 18 students for M.Phil
- ★ He has completed 26 research projects funded by various Government funding agencies in India, including DOE, UGC, DIT, DAE, CSIR, DST, DRDO and ISRO as Principal or co-investigator.
- ★ He works as Industrial Consultant to several Industries in the fields of electronics, embedded systems, instrumentation and automation, optics and Information Technology
- ★ Supervised RDSO standard testing of LED Signals for Indian Railways
- ★ He has worked as corporate trainer on Embedded Systems and VLSI Design for many industries

### **Specific professional assignments:**

- ★ Chairman, IEEE Electron Devices Society, India Council Chapter 2016-18
- ★ Vice chairman –IEEE AP/EDS Bombay chapter (1999-2003)
- ★ International consultant on “Digital IC design” under Ministry of Science and Technology of Sri Lanka Govt.
- ★ Founder Chairman of Society for Promotion of Excellence in Electronics Discipline (SPEED)



# Savitribai Phule Pune University

Formerly University of Pune

**Dr Arvind Shaligram**  
**Professor and Head**  
**Department of Electronic Science**

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On the onset let me congratulate the organizers of State level Seminar on “**e-Content Development**”. The high rate of technological growth in recent years has created rapid changes in all human endeavours. There is explosion of Knowledge and easy availability of Information. The diversified opportunities for employment and entrepreneurship have created new avenues for development of new models of education. In Traditional educational environment only the teacher plays an active role where as learners are passive mostly. It mostly deals with unidirectional transfer of knowledge. So only giving the lecture means repeating the same thing in same or little different way. The lectures are not engaging. The attention span of the students therefore gets limited. The ultimate goal of education is to inspire the next generation of learners to find their passions, talents, and continue the quest for personal growth in all aspects of their lives, reach their maximum potential in the areas they love. The young learners need the basic skills build upon to accomplish whatever task or job is assigned even in the future.

ICT opens up opportunity to adopt a range of pedagogical approaches in Teaching, Learning and Evaluation. Rapid advances in ICT have evolved several new concepts like Virtual Classrooms, Virtual Laboratories, Augmented Reality, multimedia e-content based self paced learning, MOOCs etc. The real challenge is harvesting the benefits of these technological advances in the multicultural Indian society.

The timely initiative taken to organize a State level Seminar on “e-Content Development”, is worth appreciation. The conference would be a platform for researchers, students and academicians across the country to share their ideas, efforts and findings and deliberate on the directions of future endeavours. I wish all the success for the conference.

Dr. Arvind Shaligram  
Head, Department of Electronic Science,  
Director, Examination and Evaluation and  
In Charge Director Educational Multimedia Research Centre (EMMRC),  
Savitribai Phule Pune University, Pune – 411 007.

**Ms. Venui Amar Sabale**  
Padhega Bharat.



Venu Sable has completed her Master's in Computer Application. She has submitted 12 application projects during her academic career. After completing her one year internship in a reputed software firm, she has started her own startup in virtual education sector, named as Padhega Bharat the moto means where excellence is affordable. The main aim of Padhega Bharat is to provide best quality education at a very affordable cost to the minute individual of the society and also making a very contributing impact on the future generation. Currently she is holding the position of Managing Director of Healthy Globe group of companies. Having focus on several verticals such as health care sector, education and digital marketing. Within a span of six months Padhega Bharat has established a network of 30 franchisees in Maharashtra , and aims to launch 300 franchisees upto March 2020 to provide educational network throughout every sector. 6 states of India has appreciated the concept of Padhega bharat and has started working in association with the company for this noble cause. Padhega Bharat will be launching 34 courses in future.

She has actively participated in politics since 2010. For three years she was the head of Vidhyarthi Aghadi from BJP in Pimpri Chinchwad area. She is now the secretary of Mahila Morcha aghadi in Pimpri Chinchwad. She has also delivered more than 50 speeches all over Maharashtra addressing the subject of women empowerment and various social aspects.

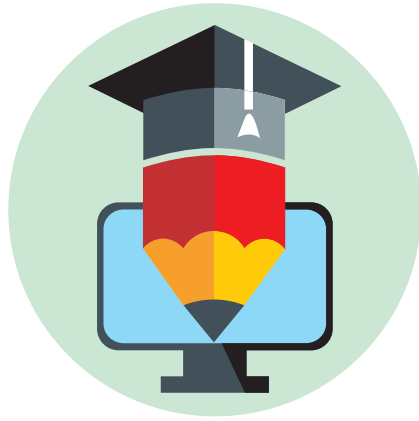
## Keynote Address



### **Dr. Apoorva Palkar,**

Director-Innovation, Incubation & Linkage at Savitribai Phule Pune University.

Dr. Apoorva Palkar is Start-up specialist in Education and a transformational expert she is currently working as Director-Innovation, Incubation & Linkage at Savitribai Phule Pune University. She is Ph D in Business Management, Alumni of IIM-A, and Bachelors in Mathematics She has spearheaded large scale international projects with various governments and been active in policy making framework and development of Research, She has been in leadership position for last 15 years. She lead a Business School as Director for 10 years later worked in corporate AP Global atop Media Conglomerate as Chief Operating officer Education for 5 years. She is a part of State Higher Education (SHEC) an apex body that works on enhancing quality of Higher Education in State of Maharashtra. She has been part of State Start-up Policy committee at Maharashtra and with Governments of India. She works as Convener Task Force Globalisation of Higher Education Governments of Maharashtra, Advisor to Minister for Higher Education Governments of Maharashtra on all policy matters. She has been part of ACBSP-Spain, AACSB – USA both International accrediting agencies as member of Bord, member of Bord of AMDISA (Association of SAARC Countries), Management Board AICTE, National President AIMS (largest association of Business School in India), Chairperson National level test ATMA She has worked on projects with UNECOSOC Council, IFAD-Rome, UN Procurement. Partner assignments in consultancy with Palladium group (UK Based consultancy), for Governments of India. She has authored more than 5 books in Marketing management and social media marketing published more than 23 research papers in referred journals, 8 students have been awarded PhD under her guidance, Editor of two research journals. A teacher of Marketing management her interest is in innovative practices in Business. She has closed 22MOU's with various Universities and countries with state Government. Currently member Academic Council and board of Deans Savitribai Phule Pune Universities. She also handles boards of research, Innovation and linkage at the Universities. She is independent Bord member with catalyst Tech and mentor for start-up funds in the company, Borard member at many educational institutes like GS College (Autonomous), SBS Ahmedabad.



# Invited Talks

# **Session: I**

## **Production Pipeline**





**Dr. Anjali Sardesai**  
Head, Department of animation

**Designation & Dept.:**

Head, Department of Animation, Coordinator, IQAC, Member, Board of Life members, Progressive Education Society, Pune, Member, BOS – Computer Science( 2018-2023) Member, BOS – Computer Application( 2018-2020), Member, BOS – Animation ( 2016-2018) Member, BOS – Animation ( 2014-2016) Member, College Development Committee (CDC), Academic Research Coordinator (ARC), Coordinator, DBT Star Scheme, Staff Secretary Nodal Officer, PMSSS Scheme, Nodal Officer, RUSA Capacity Building Program, Head, Center for Innovations, Incubation and Linkages, Coordinator, Distance Learning Center, Member Secretary, Academic Council, MCASC, Pune -5 Accreditation Ambassador, UGC Paramarsh Scheme'

**Academic Qualifications:**

- 1.Ph.D. (Computer Science) (2017), Savitribai Phule Pune University, pune  
Title : Fuzzy Logic via Computing with Words in Gynaecology Diseases  
(Interdisciplinary topic containing Fuzzy Logic, Gynaecology and Computer Science subjects)
- 2.M.C.S.(Master of Computer Science)(1997),First Class with 'A' Grade,University of Pune
- 3.B.C.S. (Bachelor of Computer Science)(1995), First Class, University of Pune
- 4.NET (National Eligibility Test )qualified ( 2005)
- 5.SET (State Eligibility Test ) qualified ( 2005)

**Certificate Courses**

- 1.Workshop on Emotional Quotient by Six Seconds United States of America(2017)
- 2.WordPress Web Development (2017)
- 3.Android Development by Google (2017)
- 4.Java Programming, ( 2000) SSi Ltd.
- 5.DOTNET, ( 2005), SSi Ltd.

**Journal Publications :**

- 1.International Journal of Research and Analytical Reviews. Alert mechanism for Early Detection of Asthama Attack using Sensors and Fuzzy Controller, 2019
- 2.Studies in Fuzziness and Soft Computing, Springer, Fuzzy Logic Based Simulation of Gynaecology Disease Diagnosis, 2019
- 3.DnyanmayoIntedisciplinary Research Journal, Agreement among Expert's Perceptions with Respect to Gynaecology Disease Diagnosis using Fleiss Kappa. 2018
- 4.Applications of Soft Computing for Web, Springer, Fuzzy Logic Based Web Application for Gynaecology Disease Diagnosis, 2017
- 5.International Journal of Innovations in Computer Science and Engineering , Artificial Intelligence in Medicine : A Review, February 2017, (Impact Factor 4.06)
- 6.Journal of Intelligent Systems,Fuzzy Logic Formalisms in Gynecology Disease Diagnosis' Journal of Intelligent System. January 2016

## **There are five phases of production is common**

### **These are:**

- Development
- Pre-production
- Production
- Post-production
- Distribution

### **Pre-production Phase**

In general, the pre-production phase encompasses all aspects of preparation that are performed before the camera starts to roll. Some aspects of pre-production include:

- 1)Screen-writing
- 2)Story-boarding
- 3)Funding
- 4)Assembling a crew
- 5)Casting
- 6)Costume Design
- 7)Location Scouting
- 8)Set Design
- 9)Properties (“props”)
- 10)Scheduling

**Screenplay/Script:** The screenplay supplies the general plan for the production of a film. There are two types:

The “spec” script : is the version of a screenplay that writers distribute to producers in the hope that it will be “optioned” (i.e. considered for production).

The “shooting” script : is a much more detailed version of the spec script that includes numbered scenes, specific camera angles and other technical information

•**Story-boarding :** A story-board is a series of drawings intended to represent how the film will be shot, including how each frame will be composed and how subject and camera motion will occur.

**Funding:** Films are generally expensive to produce. Even small independent productions with unknown actors can cost hundreds of thousands of dollars. Because of the level of investment involved, most films rely on either production companies (“Hollywood” films) or independent investors (“Independent” films).

**Assembling a Crew :** A crew is the group of workers on a film set who are responsible for facilitating production (as opposed to acting). Although large productions may employ many crew members in many different departments, there are only a few basic positions which are detailed later in the production phase.

**Casting:** Choosing actors to play roles.

**Costume Design:** Choosing or designing the clothing/costumes that the actors wear.

**Location Scouting:** Choosing the locations where the film will be shot.

**Set Design:** Constructing sets where the film will be shot.

**Properties (“Props”):** Choosing the tools and objects used in the film.

**Scheduling:** Coordinating all aspects necessary to the production.

### **Production Phase**

The production phase refers to the period of time when the film is actually being shot.

Some aspects of production include:

- Direction
- Camera operation
- Lighting
- Sound recording
- Acting

## 🔧 Production Departments

### Direction

- Director (oversees all aspects of the production)
- Assistant Director (drives the set)
- Second Assistant Director (works with the actors)

### Camera

- Cinematographer or DP (oversees camera operation)
- Camera Operator (operates the camera)
- Camera Assistants (loads camera, pulls focus)
- Clapper/Loader (loads film and slates scenes)

### Lighting

- Cinematographer (oversees lighting design)
- Gaffer & Electricians (control the lights)
- Key Grip & Grips (control the shadows and do special rigging)

### Sound

- Sound Mixer (records the sound)
- Boom operator (positions the microphone)
- Clapper (displays the clap slate for the camera)

### Talent

- Actors (perform before the camera)

### Miscellaneous

- Production Coordinator (scheduling)
- Continuity “script girl” (watch for continuity errors)
- Make-up Artist (apply make-up to actors) • Production Assistant (various jobs)

### Sound Recording

In traditional film production, sound is recorded separately from the image. This is known as “double system” sound recording. Generally speaking, there are at least four soundtracks in any feature length narrative film:

- 1 – the dialog track.
- 2 – the room tone track.
- 3 – the music track.
- 4 – the sound effects track.

## Postproduction Phase

### 🔧 Processing, Printing, and Transferring.

The first few steps of postproduction are routine, requiring more technical knowledge than creative decision making:

- Processing: Developing the camera negative.
- Printing: Creating dailies on DVD or a work print for the director and crew to see
- Transferring: Film transfer or “Telecine” to video for editing

### 🔧 Synchronizing and Assembling

#### Synchronizing

- Information from the slate and recorded on the audio tracks is stored at the beginning (“head”) of each take to allow the scene/take to be easily identified.
- To synchronize picture with sound, the editor aligns the beginning of the sound for a given scene/take with the beginning of the picture for that take, using the sight and sound of the slate as a reference point

#### Assembling

- The footage is captured to the editing system from the video tape or transferred from the hard drives if it is a digital workflow
- Once the footage is captured, the editor assembles a rough cut for timing and to make sure all necessary footage is present

## 🎬 Creative License

Between the rough cut and the online edit is where all of the creative decisions are made.

- Rough Cut: Places the film in rough sequence from beginning to end according to the screenplay. Dialog is in place, but sound effects, and music are incomplete.
- Online Edit: All of the final editing decisions and the final soundtrack mix are complete. The film is ready for final output.

## 🎬 Getting from Rough Cut to Online Edit.

Editing is the arrangement of imagery and sounds into a sequence that tells the story of the film.

An editor may arrange based on different aesthetic styles depending upon the needs of the story. For example:

- Invisible editing.
- Montage editing.

## 🎬 OLD SCHOOL - Conforming the negative

Once all of the editing decisions have been made, the original “camera” negative is brought to a “negative cutter” who uses cement splices and A/B rolling in order to conform the negative based on the decisions of the final cut of the workprint.

## 🎬 Creating a release print.

Once the negative has been conformed to an A/ B roll, a married print is created and joined with the final audio mix which is inscribed at the edge of the film optically.

For the purposes of distribution, an “internegative” is then created from the married print for the sake of striking positive “release” prints that are shipped to theaters.

## 🎬 NEW SCHOOL –

Once the edit is “locked” or final, the footage is transferred back to film in a process called a “film out”.

For distribution, an “internegative” is then created from the “film out” for the sake of striking positive “release” prints that are shipped to theaters.

# **Session: II**

## **Content Development**

## **Animation Techniques**

## **Sound Editing**



## **Dr. B. B. Chandanshive**

New Arts, Commerce & Science  
College, Ahamadnagar.

### **Education :**

B. A. English, M.A. Mass Communication and journalism, SET, NET, Ph.D.

Media Experience at E- TV and Kolhapur Aakashvani

Working at New arts college, Department of communication studies

Produced many documentary films and short films

Participated in more than 50 state level, National and International Seminars

More than 25 Awards received for valuable contribution in educational and social work.

### **introduction to script writing:**

Screenplay/Script: The screenplay supplies the general plan for the production of a film. There are two types:

The “spec” script

The “shooting” script

The “Spec” (Speculation) Script is the version of a screenplay that writers distribute to producers in the hope that it will be “optioned” (i.e. considered for production). It primarily contains:

Slug-Line (brief description of the setting, e.g. “INT. ROOM – DAY” which means the interior of a room during the day)

Business (descriptions of characters/action)

Dialog (the lines intended to be spoken by the actors)

The Shooting Script is a much more detailed version of the spec script that includes numbered scenes, specific camera angles and other technical information. An example of a page from a shooting script can be seen on the next slide



## **Prof. Sameer Nerlakar**

Modern College of Arts Science  
& Commerce, Pune.

Member- Interview Committee, CDAC, Pune for Animation and Graphic Design (2011, 2014, 2016)  
Member- Board of studies - B.Sc. Animation, Fergusson College, Autonomous, Pune (2016-2018)  
Trainer - Animation and Graphic Design at SUNBEAM, CDAC, ACTS, Pune (2011, 2012)  
Chairman - Board of paper setters and examiners for Diploma in Printing Art and Desk Top Publishing at North Maharashtra University, Jalgaon (1996)  
Member - Pune Shramik Patrakar Sangh, Pune (2005-2011)  
Member - Akhil Bhartiya Marathi Chitrapat Mahamandal (2013)  
Radio Programs - All India Radio Panji - Goa & Solapur Station  
Books published - Tales of Tao, Aayushya A4 Size, Janivanche Rang Ole, Mazi Cartoongiri, Emerald Green, Pandhra Trik Panchechalis, Hasnyawar Tax nahi  
Short Films Produced - Reghotyanchya Prodeshat, Kon Mee, Swapnanche Adbhut Vishwa - Animation, Jave Tyanchya gava, Kagaj ka Tukda, Tu Khud Ki Khoj Me Nikal, Surya Ugvel Nava  
Chief Editor - Pahat Pune online media

### **What is Animation ?**

The word animate comes from Latin verb animare, meaning 'to make alive or to fill with breath'. 'Animation' word is derived from 'Anima'. It means 'Life' or 'Soul'. In animation we use drawings, 3D models, clay, puppets or forms on computer screen to make them seem to be real. To animate something is to make it lively and interesting. Animation is a form of communication design which includes visuals with sound.

An animator is a person who possesses multiple skill set as drawing, writing, logical thinking, creative thinking, performance skill etc.

Animation Definition : Rapid display of sequence of frames by which the characters in the drawings appear to move.

Animation is the rapid display of sequence of images of 2D or 3D artwork or model positions in order to create an illusion of movement. The effect is an optical illusion of motion due to the phenomenon of persistence of vision which can be created and demonstrated in many ways.

Persistence of vision is the phenomenon of the eye by which an afterimage is thought to be persist for approximately one twenty fifth of a second on retina. This phenomenon was invented by United Kingdom scientist Peter Mark Roget in 1824. 23.

## **Brief History of Animation**

History of Animation actually starts from the stone age man who lived in caves. After invention of fire, man began to play with the shadows which were seen on the cave walls. Then he began to draw outlines of those shadows. Cave painting were early source of communication, knowledge sharing and entertainment for stone age man. After invention of paper in China people used to play with kites. Controlling the movements of kite with the help of a string is one kind of Animation. Traditional folk arts from many parts of the world are the roots of Animation art. Puppet shows are the source of entertainment from so many years, which is also a part of Animation.

### **Thaumatrope (1825)**

The thaumatrope is a simple toy that was very popular in 19th century. It is a small disk with different images on each side, such as a bird and a cage. This disk is attached with two pieces of strings. When the strings are twirled quickly between fingers, the pictures on the both side of the disk appear to be combined in a single image (i.e. bird inside the cage.) This demonstrate the phenomenon of persistence of vision.

This toy was actually invented by 'Sir John Harschel', but in 1825 'John A. Paris' of England demonstrated this device first at Royal college of Physics.

### **Phenakistoscope (1832)**

In 1832 Josef Plateau of Belgium invented the Phenakistoscope, cardboard disk with successive images that could be spun on a pivot. The images appear to move as you look through the slits that serves as a shutter on a disk.

### **Zoetrope (1834)**

This toy was invented by William George Horner in 1834. It is a cylindrical spinning device with several frames of animation printed on a strip of paper placed around inner circumference. The viewer looks through vertical slits. As the cylinder spins, the picture on strip appear to move.

### **Flip book / Kineograph (1868)**

A Flip book or Kineograph is a book with a series of pictures that changes gradually from one pose to next, so that when pages are turned rapidly, the pictures appear to move. In 1868 John Barnes Linnet patented first flip book under the name Kieograph.

### **Praxinoscope (1877)**

Charls Emile Renaud patented his Praxinoscope device in 1877. This device is a small projector which projects moving pictures on a screen. A French science teacher Renaud projected the first animation film 'Pauvre Pierrot' in public at Musee Grevin theater in Paris, France. 'Little Nemo' made by Winsor Mc Cay in 1910 was the first Animation movie with 4000 drawing drawn on a film. In 1915 Max Fleisher invented the Rotoscope, permitting live action movements to be hand-traced frame by frame. In 1922 a Kansas city boy Walt disney started his own Animation company. Early in the twentieth century Dhundiraj Govind 'Dadasaheb' Phalke made first animated film in India - 'Achkadyanchi Mouj'. In 1940 the state financed Films Division started up the cartoon film unit in India , allowing continuous production of Animation. Most of the films were social and educational.



## Types of Animation

### 1) Traditional animation

A) Full animation : Detailed drawings and detailed movements. (e.g. Beauty and the Beast, Aladdin, Lion King)

B) Limited animation : less detailed and more stylized drawings and methods of movement. (e.g. Yellow Submarine and web cartoons.)

C) Rotoscoping : tracing live-action movement, frame by frame. (e.g. Lord of the Rings)

D) Live-action/animation : Combining hand-drawn characters into live action shots. (e.g. Who Framed Roger Rabbit " )

### 2) Stop Motion

Animation created by physically manipulating real-world objects and photographing them one frame of film at a time to create the illusion of movement.

A) Puppet animation : The puppets generally have an armature inside of them to keep them still and steady as well as constraining them to move at particular joints.

(e.g. The Tale of the Fox , Robot Chicken)

B) Clay animation : Clay animation, or Plasticine animation often abbreviated as 'claymation' uses figures made of clay. (e.g. Shaun the sheep)

3) Cutout Animation : Moving two dimensional pieces of material such as paper, card board or cloth. (e. g. Flying Circus, Fantastic Planet)

4) Silhouette Animation: Characters are backlit and only visible as silhouettes. (e.g. The Adventures of Prince Achmed and Princes et princesses )

5) Model animation: Stop-motion animation created to interact with and exist as a part of a live-action world. (e.g. King Kong -1933 )

6) Go motion: Motion blur between frames of film. (e.g. The Empire Strikes Back )

7) Object animation: Regular inanimate objects in stop-motion animation, as opposed to specially created items.

8) Graphic animation: Non-drawn flat visual graphic material. (photographs, newspaper clippings, magazines, etc.)

9) Pixilation: The use of live humans as stop motion characters. This allows for a number of surreal effects, including disappearances and reappearances, allowing people to appear to slide across the ground, and other such effects. (e.g. The Secret Adventures of Tom Thumb)

### 10) Computer animation

A) 2D animation : Flat pictures (e.g. Tom & Jerry)

B) 3D animation : Use of lights, shadows, textures, different camera angles.

(e.g. Finding Nemo, Up)



## Rutudwaj Deshpande

Director, Sharkfinn Studio,  
Pune

### Work Profile:

2014- Founder of Anicept.

2013- Till Date – Sharkfinn Studios -- Director & Technical Head Animation and VFX.

2012-2013-Chiranjeev Studio- Art Director.

2011-2012 Arena Animation Tilak Road- Academic Head -VFX HOD .

2010-2011- Mitcon Eschool Talegaon- Animation and VFX Faculty.

2007-2010- RDX The Animation School- Animation Faculty.

2005-2007- Multi Career Institute-As a Multimedia Faculty.

### Profile Status:

Visiting Faculty at Fergusson College and Suryadatta College.

Member of Board of Studies for Savitribai Phule University .

Member of Board of Studies for Modern College ,Shivajinagar,Pune.

### Achievements :

Complete VFX and Animation for the Feature Film 'Rahasya ' release date 7th Feb 2020.

Nominated for the Best VFX Short film 'NIYAT' in 2019.

### SOUND EDITING

#### What is a Sound?

Vibrations that travel through the air and can be heard when they reach a person's ear.

#### CHANNELS

- Mono
- Stereo
- 5.1 Setup

Dolby or THX ?



#### Sound Formats:

Some popular formats

Wave : Mp3 : AAC : AC3 : WMA : MIDI

# **Session: III**

## **Video creation**

## **Digital Editing**

## **Post Production**



**Rajesh Kange**  
MKSSS's SMART  
(School of Media Art & Research  
Technology)

**Education:**

Post Graduate Degree in Television Programme Production from Pune University(1985)  
Post Graduate Diploma in Journalism and Telecommunication from Pune University(1993)

**Trainings:**

Two month's training of TV Programme production at Mumbai Doordarshan (May June 1985)

In service training from Asia Pacific Institute for Broadcasting Development, Malaysia (May June 1987)

**Experience:**

Worked at Educational Television Centre Balchitrawani, (State Institute of Educational Technology), Pune from June 1986 to May 2017) -31 years of experience.

As a freelance video professional produced a number of Video films including Corporate documentaries, Ad films, Training films etc.

Currently working as Senior Technical Co ordinator in Maharshi Karve Stree Shikshan Samstha MKSSS's Media Institute SMART (School of Media Activity Research and Technology), Pune

**Achievements:**

Won 13 National Awards in the Educational Video Film Festivals from 1996 to 2017 organized by CIET-NCERT, New Delhi

**What is camera?**

A camera is an optical instrument used to record images. At their most basic, cameras are sealed boxes (the camera body) with small holes (the aperture) that let light in to capture an image on a light-sensitive surface (usually photographic film or a digital sensor). Cameras have various mechanisms to control how the light falls onto the light-sensitive surface. Lenses focus the light entering the camera, the size of the aperture can be widened or narrowed to let more or less light into the camera, and a shutter mechanism determines the amount of time the photo-sensitive surface is exposed to the light.

**Exposure control**

1.Aperture 2.Shutter 3.Metering 4.Exposure and rendering

**Lens**

1.Focus 2.Autofocus 3.Image capture on film

1.3.1Film speed

1.3.2White balance

1.4Camera accessories



## **Prof. Vidhi Patel**

Khyati School of Animation

**Qualification:** M.Sc. in Animation

**Work Experience:** Ram Animation(1 Year),  
Add mantra(1.2 year), Sivertouch Technology Pvt.Ltd.(2.2years), Gujarat University  
(2.5 years), *Currently Working at* Khyati School of Design, HNGUUniversity

**Achievements:** Won Gold Delhi National Award for “Vama”- Stop Motion Film and Also Nominated in Top 5 for 25FPS International Awards.

Video editing is the manipulation and arrangement of video shots. Video editing is used to structure and present all video information, including films and television shows, video advertisements and video essays. Video editing has been dramatically democratized in recent years by editing software available for personal computers. Editing video can be difficult and tedious, so several technologies have been produced to aid people in this task. Pen based video editing software was developed in order to give people a more intuitive and fast way to edit video.

Between the rough cut and the online edit is where all of the creative decisions are made.

- Rough Cut: Places the film in rough sequence from beginning to end according to the screenplay. Dialog is in place, but sound effects, and music are incomplete.
- Online Edit: All of the final editing decisions and the final soundtrack mix are complete. The film is ready for final output.

### ***There are many editing software available in market***

Adobe Premiere Pro CC.  
Final Cut Pro X.  
Adobe Premiere Elements 2019.  
Adobe Premiere Rush.  
KineMaster.  
Corel VideoStudio Ultimate 2019.  
Filmora9.  
CyberLink PowerDirector 17 Ultra  
Davinchi Resolve



## **Sujata Pandit**

Head, VFX Technicolor,  
Bangalore.

### **Experience:**

2011-2013 Prime Focus World, Mumbai  
2013-2015 MPC Film Bangalore  
2015-2016 RotoMaker, Hyderabad  
2016-2018 Redchillies, Mumbai  
2018 The Mill, Bangalore.

### **Work:**

Exodus.Godzilla, American sniper, 300 rise of an empire, The amazing spider man.  
Ra-one Yamala pagala divana 1&2, Race 2, Dabang 2, Maleficent, X-Man First class,  
Guardianes of Galaxies, Total Recall, Immortals, Jungle Book, Himmatvala, kai po che,  
House full 2, Mataru ki bijali ka mandola, O my God.

### **What is vfx?**

VFX means visual effects.  
Visual effects (abbreviated VFX) is the process by which imagery is created or manipulated outside the context of a live action shot in filmmaking.

### **Types & techniques Of vfx**

- 1)Rotoscopy
- 2)Paint
- 3)Matchmove
- 4)Chroma Keying
- 5)Compassiting

# **Session: IV**

## **Distribution & Broad casting**



**Dilip Kalantri**  
CEO, Antargyan, Pune

Antargyan Cloudworks LLP, a Government of India's "Startup india" registered Technology Company based in Pune, Maharashtra, and working extensively in Education Domain. With more than 700 Institutes and 1,00,000 students using our products & services, we provide one-stop solutions in IT and related services in the Education Sector. We have been proudly associated with the Maharashtra State Board of Education and "BalBharati" – the Syllabus Affiliate of the State Board in their digitization ( E-Learning ) of the hard copy textbooks and the exercise book of the entire syllabus for the primary, secondary and higher secondary school education. All of this is achieved through E-BalBharati – using our User-Friendly interactive Learning & Exam Management System Platform(App)- RIOLMS.

The app has been made compatible with and successfully tested on various Digital Platforms like Desktops, Laptops, Android Mobile Phones, Tablets, macOS, iOS, etc. Through such platforms, the students of the coming generations get themselves equipped and prepared to face the growing technology not only in Education but also in their further fields of careers.

About Antargyan Cloudworks LLP –

Antargyan Cloudworks LLP has developed its forte in various technological solutions especially in the field of Education. With products like RIO-LEMS (Learning & Exam Management System & Encryption Tool)), Online Theory Exam Paper Assessment Tool, OMR Exam Conducting and Analysing Tool, etc., we have helped our clients grow and sustain their digital identity through various online and offline platforms and simplified their work processes.

Our satisfied clients include various government organizations like Maharashtra Wireless Police Department, Central Railway Department, Maharashtra Tribal Department, Jharkhand State Livelihood Program, etc. we are providing entire back end support complete for the smooth working of all their activities.

In the education sector SNTD University- Music Department (Pune), Savitrabai Phule Pune University - Lalit Kala Kendra(Internal Assessment), Bharati Vidyapeeth, reputed CA, CS, Engineering, UPSC, MPSC Coaching Institutes, Maharashtra Talent Search Exam (MTS), Maharashtra Music Olympiad Exam, etc. for whom we are successfully running our Online Theory Paper Assessment Tool, Encryption Tool, Learning and Exam Management System Tool, OMR Software by supporting them for their Data Management and Assessment Conduction and Analysis.



“Education is the Passport required to keep travelling ahead in the journey of life..”

Education in any and every field has always played a major role in the evolution, revolution and progress of an individual as well as the society. Education and learning modules through conventional mediums have developed over ages in various disciplines. Ranging from school curriculum to arts and defence education etc., conventional learning modules and resources have laid a strong foundation till now. These modules which target the spread of education to individuals present there and then have growth constraints. They are confined to the classroom space where quantity of students and reach of the educational values is limited. The treasured resource of education should reach all the desiring students not as a fundamental right but as a personal responsibility.

With the growing time constraints and commuting complexities, the option to provide services in any form to the target audience through digital means is increasing. Right from day to day activities like ordering groceries, food, movie tickets etc., online audience is increasing fourfold. The world which is connected digitally finds it easier to access any education module remotely and increase the global knowhow in their respective subject of interest. Similarly veterans find it easy to promote their expertise round the globe through various E-Learning modules without any extra effort.

Interactive Videos and virtual demonstrations created by various teachers and professionals are available through various such E-Learning applications and websites. These videos can be viewed online and offline making it feasible to access them from every nook and corner of the world. Above this creation process lies a huge task of promoting the content through authentic mediums to desired audience. The effort in form of energy, time and money taken to create and promote such content is valuable and irredeemable. Increasing content theft and illegal duplication leave the data vulnerable to the web pirates who utterly dishonour the efforts of the creator. For the safety and security of the content, it is necessary to funnel and filter the outflow of data from the creators end. Data Encryption – as it is known, is a very important process which keeps your data behind a thick wall away from such moles.

Antargyan Cloudworks LLP is a Pune based company with specialization in providing Data Encryption and related tools specially through the growing Learning and Exam Management System.

**RecordShield** is a multifaceted and resourceful tool which uses high end Data Encryption system serving any type of E-Learning content designer. With RecordShield, we promise that the control of data and content remains single handed with the designer. RecordShield gives admin options like specific number of views for the videos, duration and date limit for viewing the content. This Data Encryption tool is used in two parts – RioCrypt and RioPlay.

**RioCrypt** – RioCrypt is the Creator end of the tool which actually encrypts the data fed to it. The content creator can define the parameters of viewing the video as the admin.

**RioPlay** – this is the Student end of the tool through which the videos are viewed. RioPlay uses a Key generated from the parent app which opens the content for viewing.

Both apps coincide with their usage and work in a flow. In total RecordShield secures your content to be hosted on various E-Learning platforms. Antargyan Cloudworks also helps the content designers develop their own websites to release and sell their Data. Antargyan designs E-commerce platforms for the content designers with customized User Interface, integrated payment gateway options and Data hosting to servers.

**antargyan.com** – Additionally the content designer can also sell their Data on antargyan.com which is an E-commerce website portal developed the company. antargyan.com uses reliable payment gateway options to sell the valuable content of the designers. Through this website portal,

the teachers and professionals get an advantage of hassle free promotion of their education modules.

E-Learning platforms are a boon to the education field in many ways. Extensive reach of the content with low manpower costs and less logistics are the forte of any digital media platform. Understanding the importance and future of E-Learning various famous conventional Education Institutes have now entered and developed their E-Learning platforms.

**E-BalBharati** – BalBharati is one such institute affiliated to the Education Board who have designed their E-Learning platform by the name **E-BalBharati**. BalBharati has always been the institute which has the authority to print and distribute the school board syllabus. Antargyan has proudly designed the E-Learning portal for BalBharati and is looking after the encryption of the content designed by the authorized companies. The Online and Offline Education system, study material, chapter-wise assessments and result analysis is the forte of the application. The application is designed to work on multiple platforms like Windows, Mac, Android and IOS. Their E-Learning app which is in circulation throughout the state of Maharashtra is currently being successfully tested with students as well as teachers.

Similar to BalBharati other education institutes as well as individuals which are above school level have also started using the E-Learning platforms to teach and promote their content on a wider scale. Various **Chartered Accountant Institutes** and professionals have launched their video lessons on digital platforms and Antargyan is associated with them to design their customized platforms, encrypt their Data and make them run smoothly.

Various Government Institutes are now turning towards digitalization not only in education but also in their day to day working. **Maharashtra Wireless Police Department** has set up their digital laboratory in Pune. Antargyan is associated with this department in providing them with video conferencing tool. Their Data which is top secret level is also encrypted by Recordshield.

**OMR Assessment Tool** - Along with Digital assessment tools, Antargyan also provides its OMR assessment service. OMR is a conventional and reliable assessment tool which is used in many universities, government and private exams in multiple fields. Antargyan is associated with various such government and non-government institutes and universities by providing them with OMR assessment tool and related services. Central Railway, Maharashtra Tribal Department, Maharashtra Talent Search, Maharashtra Music Olympiad Association are few such organisations who use the OMR tools for their assessments.

**Online Exam Tool** – taking into consideration the growing digital mediums to conduct various exams, Online Exam Tool proves a boon to the teachers and institutes because of its working and ease of use. Online Exam Tool help the teachers check the exam papers of students on tabs sitting in their comfort zone. The scanned answer sheets can be viewed and checked on tabs like regular papers. The result and result analysis is obtained in much lesser time and is kept available for the students to view as well. Savitribai Phule Pune University and SNTD are successfully using the Online Exam Tool for various departments.

With the growing use of technological advancements, Digital Learning Platforms and Exam Management Systems are with no doubt the perfect futuristic approach to develop the coming generation. They are soon to become the total replacement for conventional classroom education system credits to its reach, ease and vision for the generations to come.

# Program Schedule

*Progressive Education Society's*  
**Modern College of Arts, Science and Commerce**  
Shivaji nagar, Pune – 411005, Maharashtra, India  
**Department of Animation**

## State level seminar on E-content Development

**Friday, 17<sup>th</sup> January 2020**

09:00 pm - 09.30 Pm	Tea & Breakfast
09:30 am - 10.30 am	Registration
<b>Session - I</b>	
10:30 am - 11.30 am	Inauguration
11:30 am - 12.15 pm	Prof. Dr. Apurva Palkar - Keynote Address
12:15 pm - 01.15 Pm	Dr. Anjali Sardesai : E-Content development pipeline
<b>Lunch Break : 01.15 pm - 02.15 pm</b>	
<b>Session - II</b>	
02:15 pm - 03.15 Pm	Prof. Anand Kale : Content Development
03:15 pm - 03.30 Pm	Tea Break
03:30 pm - 04.30 Pm	Prof. Sameer Nerlaker : Animation Techniques
04:30 pm - 05.30 Pm	Mr. Rutudwaj Deshpande : Sound Editing

# Program Schedule

*Progressive Education Society's*  
**Modern College of Arts, Science and Commerce**  
Shivaji nagar, Pune – 411005, Maharashtra, India  
**Department of Animation**

## State level seminar on E-content Development

**Friday, 18<sup>th</sup> January 2020**

09:00 pm - 09.30 Pm	Tea & Breakfast
<b>Session - III</b>	
09:30 am - 10.30 am	Prof. Rajesh Kange : Video Creation
10:30 am - 11.30 am	Prof. Vidhi Patel : Digital Editing
11:30 am - 12.30 pm	Mrs.Sujata Pandit : Post production
<b>Lunch Break : 12.30 pm - 01.30 pm</b>	
<b>Session - V</b>	
01:30 pm - 02.30 Pm	Mr. Dilip kulkarni : Distribution & Broadcasting
02:30 pm - 03.30 Pm	Panel Discussion
03:30 pm - 03.45 Pm	Tea Break
<b>Valedictory</b>	
03:45 pm - 04.45 Pm	Valedictory Function
04:45 pm - 05.00 Pm	Certificate Distribution

# State Level Seminar on E-Content Development

17<sup>nd</sup> and 18<sup>rd</sup> January 2020

Organized by

**Department of Animation**

**MODERN COLLEGE OF ARTS, SCIENCE AND COMMERCE**

Shivajinagar, Pune- 411005( Maharashtra)

## Advisory Committee

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- ✧ Prof. S.S. Deshmukh, Secretary, P. E. Society, Pune- 5
- ✧ Prof. Mrs.J.G. Ekbote, Chairperson, CDC, MCASC, Pune-5
- ✧ Prof. P.S.Chirputkar, Member, P. E. Society, Pune-5
- ✧ Dr. A.K. Pande, Member, P. E. Society, Pune-5
- ✧ Dr. S. Y. Paranjape, Former Principal, MCASC, Pune-5,
- ✧ Prof. A.G. Gosavi, Former Principal, MCASC, Pune-5

**Convener :**

Dr. R.S.Zunjarrao

**Organizing Secretary :**

Prof. Sameer Nerlekar

**Coordinators :**

Dr. Anjali Sardesai

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Prof. Yogindra Vaidya  
Prof. Haribhau Pagire  
Shri. Amit Kurhade  
Shri. Datta Gurav

2.

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Prof. Haribhau Pagire  
Mr. Raju Shawalkar  
Mr. Rakesh Hambir  
Aniket Sanap  
Chinmay Amberdekar

3.

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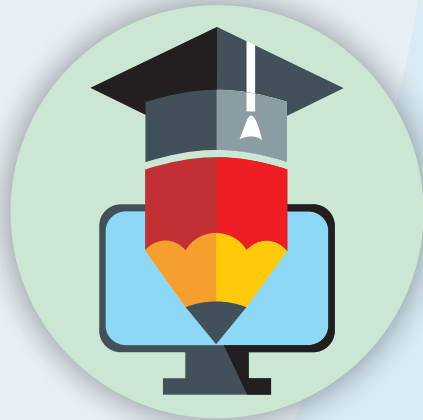
Prof. Sameer Nerlekar

4.

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Prof. Kalyani Attatrd  
Prof. Chaitali Kulkarni

	Vanshika Chaudhari Partiksha Gaike
5.	<b>Felicitation and Hall/ stage arrangement</b> Prof. Kalyani Attarde Prof. Chaitali Kulkarni Shri. Ravi Vange Shri. Raju Shavalkar Raju Shawalkar Gargi Devale
6.	<b>Finance and sponsorship Committee</b> Dr. Anjali Sardesai Shri. Vilas Lad Mrs. Swati Patwardhan
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9.	<b>Communication Committee</b> Dr. Anjali Sardesai



**“We need to bring learning to people instead  
of people to learning.”  
– Elliot Masie**