

# NEWSLETTER TECH NEWS



2019-20 Term I Issue I

## Why do we need Digital Human Model

Artical By  
Heiner Bubb,in DHM and  
Posturography, 2019

Computer technology in the field of game technology, film, and virtual reality is so far advanced that computer-generated avatars can hardly be distinguished from their human originals. Measured in this respect, the digital human models used in science and technology are often very simple and often do not meet the esthetic requirements of the consumer sector. So why do we still need digital human models? The starting point for the development of such models was the ergonomic design of workplaces, which in the sense of a prospective ergonomics already required in the design phase—even before any physical realization—on the drawing board a human-friendly design. To this day, there are two approaches: on the one hand, anthropometric tables provide interpretative guidelines and standards. However, as this method was not sufficient for the increasingly differentiated demands, an individualization of the interpretation began with the use of template models in the early 1970s. With the appearance of computer technology, special three-dimensional digital human models were then developed for this purpose.

In the first place, two essential modeling lines were distinguished: on the one hand, the anthropometric representations mentioned above, which the human dimensions, which are otherwise only available in table form, were made available in a three-dimensional model, and on the other hand biomechanical models represent the physics, in particular the mechanical properties of the human body. With the increasing power of computer technology and, in particular, the increasingly available measuring technology, two further areas of application of digital human models were added over time: physiological medical models and cognitive models. The paper gives a brief overview of the development of these topics within the framework of the SAE DHM Conferences and its successors, as well as the challenges that arise in these four fields of application.

A common challenge of all the modeling is to find general relationships on the basis of measurements, to formulate them mathematically, and to extend them out into areas of application, which were not the subject of the measurements. There are two areas of application: on the one hand the ergonomic design of workplaces and workflows and on the other the individual optimization of behavior in sports and therapy.



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## About Us

### From the Principal's desk:

The aim of the institute is to develop not just top quality engineers but also well-developed persons. Our motto therefore is "the joy of excellence in a world of high technology".

As professionals you are required to gain knowledge and use it effectively even when you are exposed to pressure. You can surely face the challenges in the world with great courage if you can manage your valuable time and set your priorities, by having healthy competition and team spirit. Working in a team, effectively yields best results, even under tight deadlines.

My congratulations to MCA Department for their consistent efforts in making newsletter and I wish that they will continue to do this in the years to come.

- Prof. Dr. Mrs. K. R. Joshi



### From the HOD's desk:

It's a great pride to present our Master of Computer Application Department's e- Newsletter "TechNews", our very own newsletter which includes different activities articles and achievements of the MCA students. My congratulations to the team who took the responsibility for carrying out this task effectively

- Prof. Dr. Mrs. V. B. Sangvikar

### About The Department:

The department of Master of Computer Application (MCA) has been started in the academic year 2003-04 and is permanently affiliated to Savitribai Phule Pune University and recognized by AICTE and DTE. The mission of the department is to contribute to the growth of technical education and to lead to its enrichment and advancement. Our programme equips our students to be competitive, to succeed in their profession, and to contribute to society.

### From the Editor's desk:

It gives me an immense pleasure to present our biannual e- newsletter "TechNews" for the current semester. I would like to thank our HOD and my colleague's for their support in making of this issue. We have worked hard to bring up an exhilarating flashback of the events, achievements during the session 2018-19 Term II. I hope you find it interesting.

- Prof. Mrs. Pradnya A .Muley

### Department Vision :

To develop Competent Technocrats in the field of Computer applications imbued with human values.

### Department Mission:

To impart knowledge in the field of Computer applications with a focus on developing the required competencies.

To improve technical skill of the students through practical and hands-on experience.

To enhance the quality of the students by collaboration with Alumni and Industry.

To make students socially responsible citizens.

**PROGRAMME EDUCATIONAL OBJECTIVES  
AND PROGRAM OUTCOMES**



**After completing MCA degree student will be able to:**

PO 1: Apply knowledge of mathematics, computer science appropriate for real world applications.

PO 2: Identify, formulate, analyze and solve complex computing problems using relevant domain disciplines.

PO 3: Design and evaluate solutions for complex computing problems that meet specified needs for real world applications.

PO 4: Apply programming logic including design of algorithm, programs, analysis and interpretation of data to provide valid solutions

PO 5: Apply appropriate techniques and modern computing tools for development of real world applications.

PO 6: Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practices.

PO 7: Understand the need and develop the capacity to persistent learning for continual development as a computer professional.

PO 8: Participate as a member and leader in a team and stand out in multidisciplinary environments to demonstrate computing and management skills.

PO 9: Communicate effectively to comprehend and present effective technical Documentation.

PO 10: Apply the computing knowledge efficiently & effectively with concern for societal, environmental, and cultural aspects relevant to professional computing practices.

PO 11: To contribute effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.

PO 12: To identify a timely opportunity and innovation with entire effort to function as a successful entrepreneur.

**Programme Educational**

**Objectives:**

PEO 1: The broad knowledge of computer applications for successful careers in industry.

PEO 2: The habit of lifelong learning for career development in this dynamic and rapidly changing field.

PEO 3: The ability to inculcate effective communication in the team through demonstration of good analytical, design, development and implementation skills.



Official Newsletter of the department of MCA P.E.S. MODERN COLLEGE OF ENGINEERING, PUNE

EVENTS BY THE DEPARTMENT 2019-20  
CO-CURRICULAR



Placement Orientation  
July 2019  
Speaker : Ms. Swati More



Guest Lecture on  
Android Operating system &  
Application Development  
Speker: Prof. Gaurav Lonkar  
Co-Founder &CTO at BizSpider  
Tech. LLP



TechnicalTalk Series on Agile ,  
Accessibility, Data Warehousing , Mobility  
, Industrial Software Development  
Speakers : Mr. Pranav Dolekar , Mr.  
Siddharth Newase , Mr. Mangesh Mense  
, Mr. Pramod Tupe , Mr.Vinayak Joshi



Guest Lecture on Introduction to  
Python & IOT  
Speaker: Mr Abhishek Angole.,



Guest Lecture on Spring Boot  
Speaker:Mr. Vijay Subramaniam

EVENTS BY THE DEPARTMENT 2019-20  
CO-CURRICULAR



Performance Tuning and digital  
payments activity on Data Base  
Management System  
Speaker:Mr. Gaurav Kothari



Session on Group Discussion  
Speaker : Mr. Gaurav Ambedkar , TY  
MCA Students



Hands on - Selenium Web driver  
Speaker:Mr. Chetan Bendre



Guest Lecture on QT  
Framework.  
Speaker:Prof. Santosh N.  
Nagergoje



Guest Lecture on MTP  
Speaker:Mr. Gaurav Ambedkar

**EVENTS BY THE DEPARTMENT 2019-20  
CO-CURRICULAR**



Guest lecture on Advanced Web development tools  
Speaker:Mr. Vikrant Borde, Senior software developer from Vroomble Services Pune,



Guest Lecture on Personality Development  
Speaker:Mr Pradeep Bhide



Guest Lecture on Seminar on Basics of computer and OS with industry scope.  
Speaker:Mr. Nikhil Bhaskaran -Founder of Shunya OS



Guest Lecture on Corporate environment in IT companies regarding Corporate's value, expectation from an Employee, Interview Techniques, Current and Emerging Technologies with Project Delivery Models  
Speaker:

**Extra-CURRICULAR**



फिलॉसॉफर्स क्लब - " व्यक्तित्व विकास आणि श्री. रामायण वक्ते : संत सेवा संघाचे संस्थापक अध्यक्ष परमपूज्य श्री संजय गुरुजी

ACADEMIC YEAR: 2019-2020  
TERM I STUDENTS ACHIEVEMENTS



Cultural

- Raghav Naphade secure 3rd position in the intercollegiate level "astitva" organized by BMCC
- Roshni D'souza won a consolation prize in National Level Esaay writing Competition
- Roshni Dsuza Won a Consolation prize in national level Esaay writing Competition organized by A. R. Burla Mahila Mahavidyalaya, Solapur

- Shubhamkar Zare secure Technical Official Award in National Championship organized by MPAM
- Minakshi Shinde secure 3rd position in Intercollege Fencing Competition Organized By MMCOE



Sports



Technical

- Neelkumar Mota was in Top 50 among 1150 participants of the state level event i2i(idea to innovation) Organized By BHAU(COEP)
- Hrushikesh Salgaonkar Clear First Stage of National level AFCAT Organized By Indian Airforce

**“Let’s go invent tomorrow instead of  
worrying about what happened  
yesterday.”  
Steve Jobs**

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