



Established as per the section 2(f) of the UGC Act, 1956, Approved by AICTE, COA & BCI, New Delhi



REVA
UNIVERSITY

Bengaluru, India

LEARNING
UNLIMITED...



2022

MECHANICAL
ENGINEERING

#REVAolutionary Learning



All that man has to do is to take care of three things;
good thought, good word, good deed.

- Swami Vivekananda



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About REVA University

Building Dreams. Designing Future.

Established under the REVA University Act 2012, the University is recognised by the University Grants Commission (UGC) and is approved by the AICTE (All India Council for Technical Education). REVA University prides itself in contributing to every student's holistic development. The University currently offers 49 full-time Under Graduate Programmes, 28 full-time Post Graduate programmes, 2 part-time Post Graduate programmes. The University offers programmes in Engineering, Architecture, Science and Technology, Commerce, Management Studies, Law, Arts & Humanities, and Performing Arts. Courses are offered in Certificate/Diploma and Post Graduate Diploma too. REVA University facilitates research leading to a Doctoral Degree in all disciplines.

The programmes offered by REVA University are well-planned and designed based on methodical analysis and research with emphasis on knowledge assimilation, practical applications, hands-on training, global and industrial relevance, and their social significance. REVA University believes in preparing students through the Choice Based Credit System (CBCS) and Continuous Assessment and Grading Pattern (CAGP) of education.

The CBCS & CAGP pattern of education has been introduced in all programmes to enable students to opt for subjects of their choice in addition to the core subjects of study and to train them with vocational skills. This methodology helps students earn more credits and facilitates students to pursue additional Proficiency Certificates and Diplomas.

The faculty is an active part of the academic dialogue. Teachers and instructors with illustrious academic experience are the architects of the meticulously designed curriculum and program modules offered at REVA University. They come with industrial exposure and experience that often translates through their teaching, thus bridging the gap between the industry and academia.

REVA University has an updated, ever-evolving collection of books, journals, and digital content in the library with the latest IT infrastructure that ensures students have information at their disposal.

The lush green campus, state-of-the-art laboratories, custom-designed classrooms to enable seamless learning, and world-class indoor and outdoor sports facilities make REVA University the most preferred university among students and MNCs that visit the campus for placements.

Building
DREAMS
Designing Future



FROM THE CHANCELLOR'S DESK



Dear game changers,

Welcome to REVA University!

I like to address the student populace as game-changers because we, at REVA, believe in the phenomenal power of the youth, and their powerful ideas. As students, you hold the power to transform society and change the paradigm of every development – economic, social, and cultural. Gen Z is born with immense capabilities that can change the face of a nation, and we are proud to cultivate, nurture, and discipline such game-changers at REVA University. The University is driven by the founding philosophy that 'Knowledge is Power', and we are striving to build a community of perpetual learners who can achieve everything they aspire. To build such a community, learning should be continuous, and cross all borders. Hence, REVA University has adopted the mission to make learning unlimited. Our driving principle of 'Learning Unlimited' is empowered with the adoption of technology.

As we have seen in the recent past, technology in education is not just an enabler, but a necessary medium, and the crisis in the Education sector during the pandemic helped us all understand the importance of virtual learning. Fortunately at REVA, we had adopted a digital-first approach towards educating our students, and our preparedness helped us smoothly transition towards online learning.

The pandemic was also a reminder that Blended Learning is the way forward and is the biggest enabler of seamless learning. Our core vision remains to change the way students learn from traditional learning methodologies and we are happy to adapt and adopt technological changes.

The ecosystem at REVA University is not only tech-centered but is developed in such a way that it contributes to the overall development of a student. Our exclusive executive programme RACE (REVA Academy for Corporate Excellence) has been ranked 2nd in India for MBA in Business Analytics, REVA NEST- the Start-Up Incubator, are all designed to make our students ready for the corporate world.

In a step ahead, our UIIC (University-Industry Interaction Centre) programme allows students to interact and learn from the industry leaders. The UIIC is an exclusive programme of the University and a key enabler in bridging the gap between academic life and the corporate world.

Going forward, we aim to make all the disciplines at par with our exclusive programmes, and REVA aspires to be a coveted multi-disciplinary institution.

True leaders and game-changers are made when a University takes it on its shoulders to mould personalities and gives life to the ideas of its students. With the dedicated efforts of our eminent faculty members, I am certain REVA University students will be guided and mentored in such a way that they will be the game-changers of tomorrow.

Dr. P. Shyama Raju
Chancellor, REVA University

SCHOOL OF MECHANICAL ENGINEERING

Mechanical Engineering is one of the oldest and classical branch of Engineering which drives the development and economy of the country. The school of Mechanical Engineering in REVA University has a rich blend of experienced, energetic and dedicated faculty with highest qualification in the specialisation of thermal, design, manufacturing, robotics and management streams having industry updated curriculum. Based on present and future circumstances, the courses like Design thinking and Innovation and Entrepreneurship are embedded in the curriculum to infuse strong industry-relevant with deep vision, inducing practice and actively collaborating with reputed industries and job oriented.

The school has well-furnished class rooms and well equipped laboratories with modern software tools to meet academic and industry requirements. The research centre with modern equipments and testing facility is also available to cater research activities in the field of advanced materials and bio-fuels. Extracurricular and co-curricular activities are conducted to develop additional skills, knowledge and confidence through University Industry Interaction Cell and various student clubs and student chapters with the support of industries. Industry persons are invited to give technical talks on latest technologies and students are deputed for internship in industries and universities in India and Abroad. The school is having MOU with reputed industries and universities in India and abroad for internship, research and twinning programme or higher studies which will give more exposure of our students to outside world. Many students have done internship in reputed institutions like IISc, ISRO, Bosch India.

Every semester school is organising industry visits to reputed organisations to learn various aspects of industry. Student clubs and chapters are highly active in the school which are MARS, ISHRAE Student Chapter, Institute of Indian Foundrymen, Fluid Power Society, SAE club and Aryan Racing Team through which cultural events, training programmes, invited talks, industry visits and placement activities are conducted. School is encouraging the students to participate in national and international level competitions like Solar car design, Electric vehicle design, Formula car design, ATV design, Go-Cart design and quiz competition through this student can learn additional skills like design, team management, time management and financial aspects. Additional certification programmes are conducted on recent technologies like Hybrid & Electric Vehicles, Industrial Product Design, 3D Printing, IoT for Mechanical Engineers, Design thinking, Robotics and its Applications to impart skills which are industry relevant.

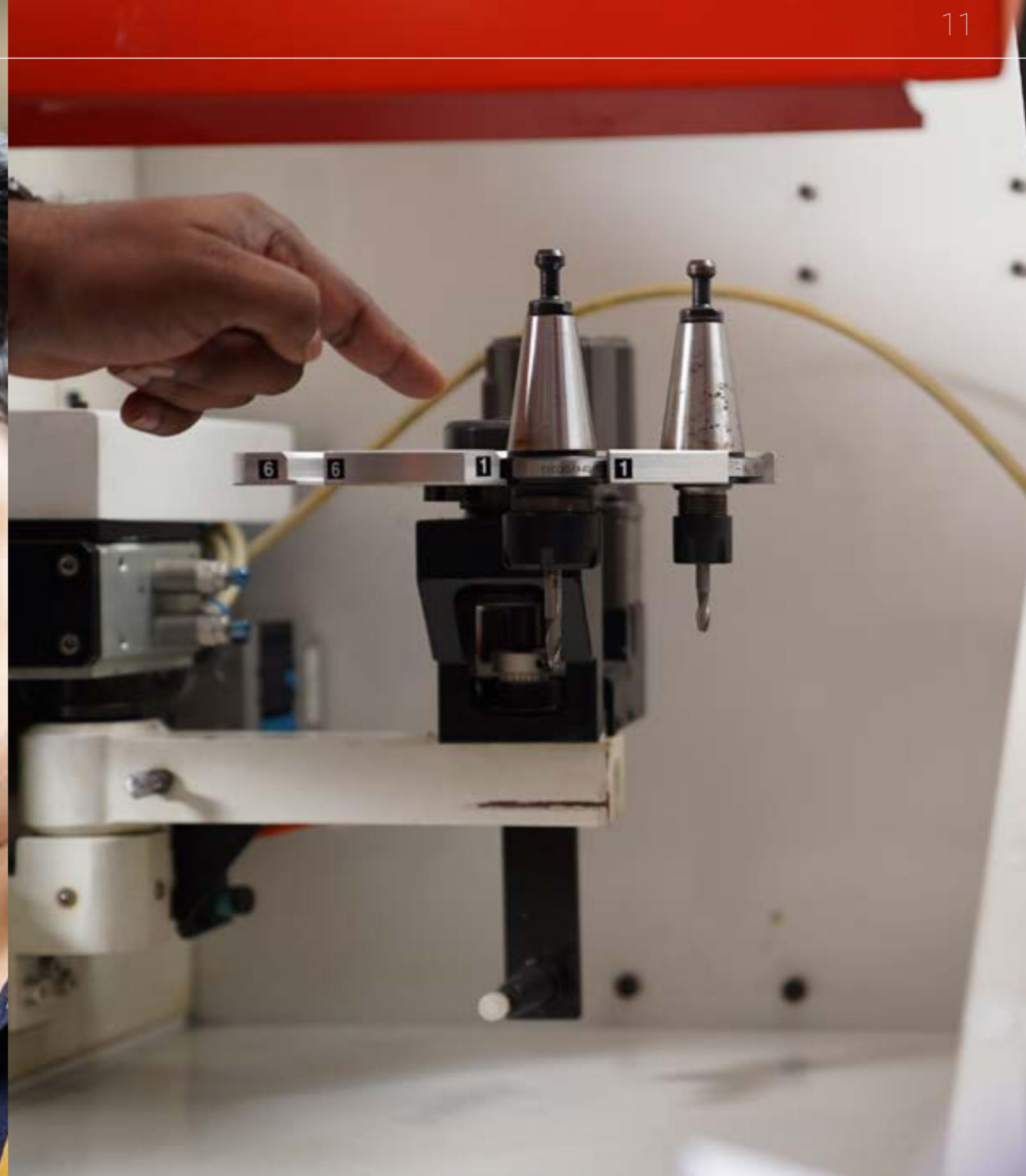
The School is organising workshops, seminars, conferences and competitions in national and international level for students, faculty and research scholars to enhance their skills and research trends. The school offers B.Tech in Mechanical Engineering, B.Tech in Mechatronics Engineering, M.Tech in Machine design and PhD programme. The curriculum of both UG and PG is designed to meet the needs of the society and industry for present and future. It also meets the requirements of higher studies in India and abroad and also for the requirement of competitive exam and Govt. jobs. In overall, school will support and make our students more disciplined, good human beings and more responsible persons of the society.



OUR ADVISORY BOARD

S. No.	Particulars of Members
1	Dr. N. V. Ravikumar Associate Professor, Department of Metallurgy & Materials Engineering, IIT Madras
2	Mr. K. N. Narsimha Murthy Chairman, Fluid Air Systems, Bangalore. Hon. Treasurer, Karnataka Small Scale Industries Association (KSSIA)
3	Prof. M. V. Krishna Murthy Former Professor Dept. Mechanical Engineering IIT Madras, Former Director, VIT, Vellore
4	Mr. Praveen Kumar Jinde Scientist, NAL, Bangalore
5	Dr. K Ramachandra Former Director, GTRE, Bangalore CEO, NP-MICAV's National Design Research Forum The Institute of Engineers, Bangalore.
6	Prof. E. Abhilash Dept. Mechanical Engineering, King Khalid University Abha, Kingdom of Saudi Arabia

Placement	190 (ongoing) 2021-22
Companies Visited	35 (TCS, LTI, DXC, Wanger & Watson, HTM Hydraulics, VFS Technologies, Amazon) Triveni Gears, Ajax Fiori, BATA India, Jindal SAW Ltd., Wipro, Sai Hydraulics, DHL, Reliance, IBM, Cognizant, Accenture, Bosch
International Collaboration	02
Clubs & Chapters	09
No. of students undergone Internship	200+(ongoing) 2021-22



Programmes Offered by the school:

1. B.Tech in Mechanical Engineering
2. B.Tech in Mechatronics Engineering
3. M.Tech in Machine Design
4. Ph.D in Mechanical Engineering

ELIGIBILITY CRITERIA

B.Tech (Regular)

Pass in PUC/10+2 examination with Physics and Mathematics as compulsory subjects along with Chemistry/Biotechnology/Biology/ Computer Science / Electronics / Technical vocational subjects as one of the optional subjects. Candidates should obtain at least 45% marks (40% in case of candidate belonging to SC/ST category) in aggregate in the above subjects from any board recognised by the State Governments / Central Government/Union Territories or any other qualification recognised as equivalent thereto. Good score in REVA Common Entrance Test (REVA CET) or Karnataka CET / COMED-K / Uni-GAUGE or any other equivalent examination conducted by a recognised institute/agency

Duration:4 years (8 semesters)

M.Tech

B.E/B.Tech in Mechanical/Aeronautical/Automobiles/Industrial production Engineering with a minimum of 50% (45% in case of candidate belonging to SC/ST category) marks in aggregate of any recognised university/institution or AMIE or any other qualification recognised as equivalent there to.

Duration:2 years (4 semesters)

Ph.D

Subject to the conditions stipulated in REVA University PhD Regulations, the following persons are eligible to seek admission to the Ph.D. programme.

Candidate for admission to the Ph.D programme shall have a Master degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale) or an equivalent degree from a foreign educational Institution accredited by the approved Assessment and Accreditation agency. A relaxation of 5% of marks, from 55% to 50% or an equivalent relaxation of grades is allowed for those belonging to SC/ST/OBC (non-creamy layer)/different-abled and other categories of candidate

Mechanical Engineering

There is tremendous scope for Mechanical engineers in Design Engineering, automobile engineering, cement industry, steel, power sector, hydraulics, manufacturing plants, drilling and mining industry, petroleum, aeronautical, biotechnology and many more. Nowadays they are also increasingly needed in the environmental, health sector and bio-medical fields. There are exciting times ahead for mechanical engineers as transport technologies like hyper loop, electric vehicles, flying cars, drone technologies, intelligent system like robots and additive manufacturing including 3D printing are gaining importance.

The school of Mechanical Engineering offers an additional Minor & Honours degree in the following disciplines:

Minor Degree [Other Branch]

1. Artificial Intelligence & Machine Learning
2. Computer Science Engineering
3. Construction Technology
4. Robotics
5. Management

Honours Degree [Core Branch]

1. Advanced Manufacturing Technology
2. Electric Vehicle Technology



Mechatronics Engineering

There is an immense scope for Mechatronics engineering in the present scenario due to fast growth in automation and advancement in technology. The main advantage after the completion of this programme is that one can not only work in the field of Mechatronics, but has equal opportunities in the other stream of engineering such as mechanical, electronics, electrical, computer and information technology. Mechatronics engineering has application in areas like Transportation and Vehicle Systems, Telecommunication and Data Communication Networks, Power Devices, Medical/Bio medical systems, Heavy Engineering and Manufacturing Systems, Energy Devices, Consumer Products, Computer Techniques in Medical, Bio imaging and Technology Systems and Computer Integrated Manufacturing Devices and Systems.

M.Tech Machine Design

Machine Design program has an industry-oriented curriculum integrated seamlessly with simulation tools like MATLAB & Simulink, Hypermesh, Ansys Workbench, ADAMS, Vibration Measurement Labs, Solid Works, etc. The Program is enriched with much-needed courses like TRIZ Technique, Design Thinking, Machine Learning, etc.

USPs of School

- Highly Experienced & Trained Faculty Team.
- World Class Learning Facilities.
- Well Designed Academic Program to Impart Holistic Education to Broaden the Technical, Spiritual, Physical and Cultural Dimensions.
- Choice Based Credit System Integrated with Project and Skill Based Learning.
- Few Credits can be completed using NPTEL - MOOC's, SWAYAM. Etc...
- Software Courses like C-programming, PHYTON Programming, Machine Learning, IOT are also integrated with Mechanical and Mechatronics Engineering Curriculum as soft core which will enhance student's ability to get job opportunity in software and IT Industry.
- Significant Training on Life Skills Development.
- Theme based projects on Green technology, industry 4.0, IoT and Agricultural products.
- Encouraging the students to do interdisciplinary research and projects
- Open Electives to Enlarge the Horizon.
- Student Internship and Study Tour Opportunities at Foreign Universities.
- Assistance to paid Internships in top companies
- Opportunities for a Semester Abroad or Year Abroad.
- Industrial Visits to Sensitise the Students to the Practical Challenges and to expose them to the Problems of the Business World.
- Research Training through Projects and Dissertations.
- Mentoring and Adoption - Suggestions and Guidelines are given to the Students Periodically.
- Opportunities for Technology Incubation and Entrepreneurship Development.
- Active Training and Placement cell functioning with full sprit to place students in Core Industries
- Research Centers in Material Characterisation, Design & Dynamics and Bio fuels.
- Certification programme on recent trends
- Seamless integration of programme with tools like MATLAB, Simulink, ADAMS, ANSYS Workbench, solid works etc.
- Well stocked School Library with good number of Reference books and Journals.
- Periodic Guest lectures, Technical seminars and Workshops on latest trends by Industry Experts and Renowned Academicians which benefit the students to supplement their curriculum.
- Students Chapters provide unique opportunities for networking, mentoring and bonding over common interest.
- The school having panel of expert teaching fraternity from IITs, NITs and other reputed universities with industry experiences
- School is having centre for excellence with Toyota-Kirloskar a leading automotive industry.
- School has obtained more than two crores grants for research from various government agencies.
- The faculty members are publishing research papers in International and peer-reviewed journals.

Life at REVA



LIBRARY AND INFORMATION CENTRE

Browse through lakhs of books, e-books, research publications, educational journals and magazines



OPEN AIR THEATRE

Always bring a variety of Cultural programmes by different groups of students



STUDENT CLUBS

Literary Club, Science Clubs, Sports Club, Robotics Centre, Eco Club, Quiz Club, Dance and Drama Club



NCC, NSS & VOLUNTARY WORK

Regular social activities like medical camps, blood donation camps in rural areas held to work towards the overall benefit of the society



HOSTELS

4,000-bed capacity hostel that's well-ventilated, hygienic and serves fresh cooked meals



ONLINE LEARNING/ DIGITAL CLASSROOMS

Well-equipped class rooms with modern gadgets like projectors, tabs



GREEN CAMPUS WITH OPEN AIR AMPHITHEATRE

A lush green area that allows students to study, socialise and enjoy nature



GUEST HOUSE

Residential facility for the benefit of parents and visitors travelling from outstation



FOOD COURT

International food chains have stalls at the Food Court that serve Pan Asian, Asian, North Indian, South Indian, among many other cuisines



BRAND STORE

Variety of international brand merchandise, apparels, gift articles, and a wide range of stationery available on the campus



AUDITORIUM AND SEMINAR HALLS

Large auditorium with 1000-seater capacity, along with adequate number of seminar halls to facilitate co-curricular activities



TRANSPORTATION

Routes through all parts of Bengaluru city



SPORTS

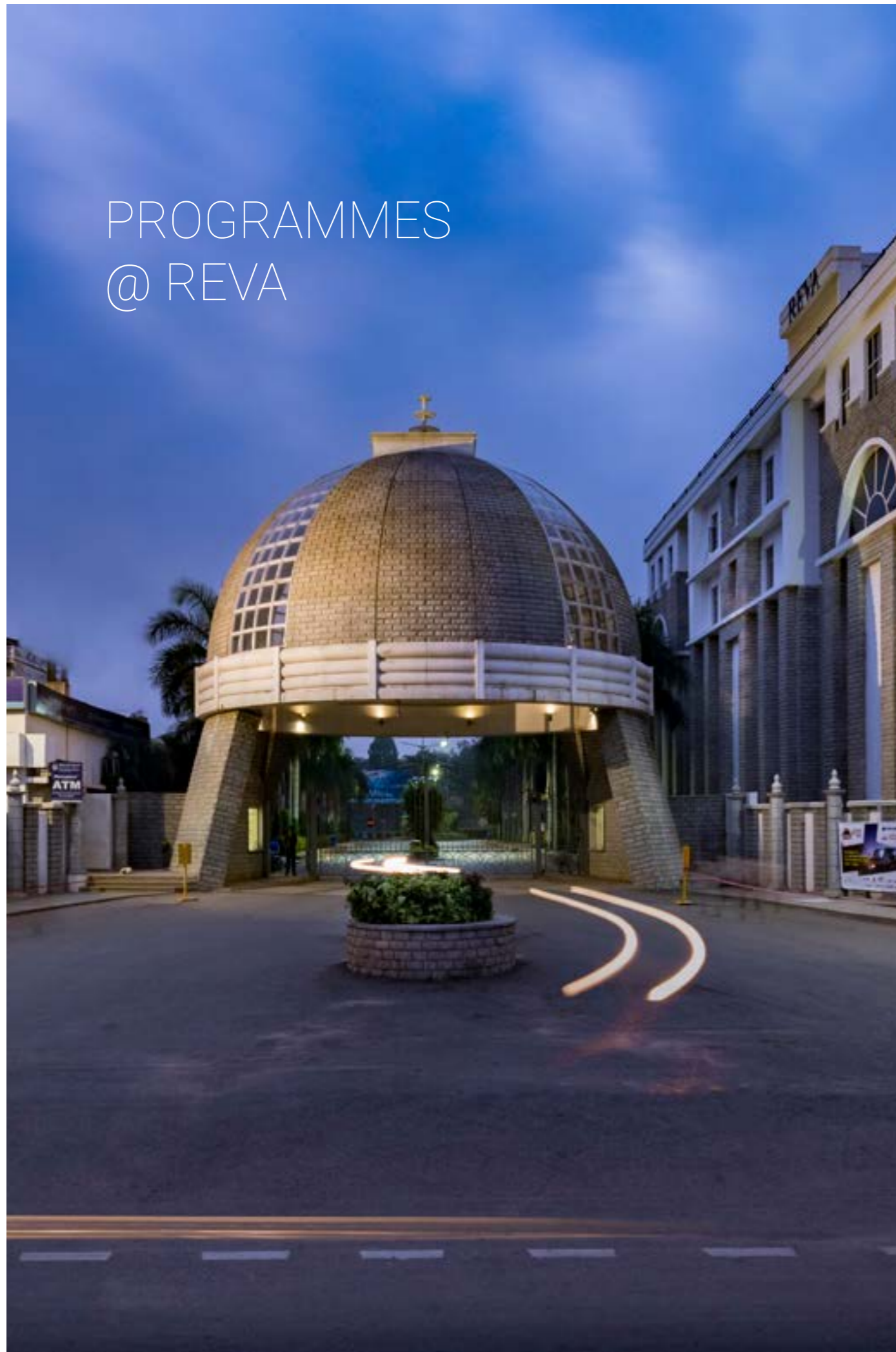
Special focus on Sports. More than 9 teams representing REVA University at state, national and international tournaments



GAZEBOS

An open area for students of certain courses to learn, practice and excel amid open classrooms

PROGRAMMES @ REVA



- B. Tech. - Computer Science & Engineering
- B.Tech. - Artificial Intelligence & Data Science
- M.Tech. - Computer Science & Engineering (Full Time)
- M.Tech. - Computer Science & Engineering (Part Time)
- B.Tech. - Computer Science & Information Technology
- B. Tech Computer Science & Systems Engineering
- B.Tech. - Information Science & Engineering
- B. Tech. - Computer Science & Engineering (Artificial Intelligence & Machine Learning)
- M.Tech. - Cyber Security
- M.Tech. - Artificial Intelligence
- B.Tech. - Electronics & Communication Engineering
- B.Tech. - Electronics & Computer Engineering
- B.Tech. - Robotics & Automation
- M.Tech. - VLSI & Embedded Systems (Full Time)
- M.Tech. - VLSI & Embedded Systems (Part Time)
- B.Tech. - Civil Engineering
- M.Tech. - Computer Aided Structural Engineering
- M.Tech. - Transportation Engineering & Management
- M.Tech. - Construction Technology & Management
- B.Tech. - Mechanical Engineering
- B.Tech. - Mechatronics Engineering
- M.Tech. - Machine Design
- B.Tech. - Electrical & Electronics Engineering
- B.Tech. - Electrical & Computer Engineering
- M.Tech. - Power & Energy Systems
- B. Tech Bioelectronics Engineering
- M Tech DCN
- B.Sc. - Interior Design
- B. Arch
- M. Arch
- BA LL B (Hons)
- BBA LL B (Hons.)
- LL M (Business & Corporate law)
- LL M (Criminal law)
- B.Com (Industry Integrated)
- B.Com - Hons (Accounting & Taxation)
- B.Com - Hons (Accounting & Statistics)
- B.Com - Hons (Banking & Finance)
- B.Com - Hons (Economics & Finance)
- M.Com
- BBA (Industry Integrated)
- BBA - Hons (Enterpreunership)
- BBA - Hons (Talent Management)
- BBA - Hons (Marketing)
- BBA - Hons (Banking & Finance)
- BBA - Hons (Innovation & Enterpreunership)
- BBA - Hons (Business Analytics)
- BBA - Hons (Strategy & Leadership)
- BBA - Hons (Health Care Management)
- MBA
- BCA
- B.Sc. Honors (CC & Big Data)
- B.Sc. (Multimedia & Animation)
- B.Sc. (Cyber Security)
- MCA
- M.Sc. - Data Science
- B.Sc. - Biotechnology, Biochemistry & Genetics
- B.Sc. - Bioinformatics - Biology, Mathematics & Computer Science
- B.Sc. - Microbiology, Chemistry & Genetics
- B.Sc. - Mathematics, Statistics & Computer Science
- B.Sc. - Physics, Chemistry & Mathematics
- B.Sc. - Physics, Mathematics & Computer Science
- M.Sc. - Biotechnology
- M.Sc. - Chemistry
- M.Sc. - Mathematics
- M.Sc. - Physics
- M.Sc. - Microbial Technology
- M.Sc. - Bioinformatics
- B.Sc. - Medical Laboratory Technology
- B.Sc. - Medical Radiology & Diagnostic Imaging
- B.Sc. - Nutrition & Dietetics
- B.Sc.- Sports Science
- BPT
- M.Sc. - Biochemistry
- BA - Journalism, English & Psychology
- BA - Political Science, Economics & Journalism
- BA - Journalism & Mass Communication
- MA - English
- MA - Journalism & Communication
- M.Sc. - Psychology
- Certificate - Bharatnatyam
- Certificate - Kuchipudi
- Certificate - Kathak
- Certificate - Mohiniyatam
- Certificate - Odissi
- Diploma - Bharatnatyam
- Diploma - Kuchipudi
- Diploma - Kathak
- Diploma - Mohiniyattam
- Diploma - Odissi
- Diploma - Hindustani Vocals
- Diploma - Carnatic Vocals
- Diploma - Indology
- BA - Performing Arts, English & Psychology
- MPA - Bharatanatyam
- MPA - Kuchipudi
- MPA - Kathak
- MPA - Mohiniyattam
- MPA - Odissi

About REVA Alumni

REVA University has a strong alumni network which consists of more than 35000 alumni which is a part of our global alumni community. REVA University encourages the alumni to stay connected through various activities, technical talks, opportunity to establish their ventures etc and provides overall support and benefits for life. That may be through providing alumni with career support, helping them to reconnect with old friends, access to a wide network of fellow alumni and a range of exciting events.





REVA
UNIVERSITY

Bengaluru, India

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 /REVAUniversity

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