

UVCE – Next 100 Years

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About UVCE and its Legacy

In 1913, School of Engineering was started and later converted to a full-fledged Engineering College in the year 1917 under the name Government Engineering College and was affiliated to the University of Mysore. The establishment of this prestigious institution was vision of Sri Nalwadi Krishnaraj Wodeyar, Maharaja of Mysore and realized by Bharat Ratna Sir M Visvesvaraya. To give a fillip to higher education and to enable Mysore boys to play their part in the Engineering field, Maharaja of Mysore gave the approval and powerful backing for this proposal to establish the institution.

It is the fifth Engineering College established in the country and 1st in Karnataka. After the formation of Bangalore University in 1964, UVCE became one of its constituent college. UVCE has a sprawling serene campus in the heart of Bangalore situated at K R Circle near Vidhana Soudha and also couple of Departments at JnanaBharathi campus. UVCE is recognized by the All India Council of Technical Education of the Government of India (AICTE) and is a recipient of financial aid under World Bank's Technical Education Quality Improvement Programme (TEQIP) totally Rs. 26.5 crores from Phase I and Phase II.

“The journey of a thousand miles begins with one step.” - an apt saying for the University Visvesvaraya College of Engineering. From the struggling days, it has evolved over the years and celebrating its Centenary Year now. During this journey, it has witnessed many historical moments, molded some astounding Achievers in various fields, shaped careers of thousands of Engineers and contributed to the society in numerous ways. It has many “Firsts” to its name – Electrical Engineering course was introduced for the first time in India in 1925, First Lady Engineers graduated in 1963 etc.

UVCE Alumni have etched “UVCE” as a highly recognized institution and are keeping the esteemed honor of the institution flying high with their remarkable achievements in the respective fields/organizations. Alumni of UVCE are not only noteworthy of their achievements that have brought great recognition to the institution but have also made the nation proud on a global platform.

Current UVCE and Statistics

This pioneer college has grown many folds, producing some of the best engineers in the country. Being an institution that functions on only Merit Based CET seat allotment, the students obtaining admission are the creamy layer of the bright students in the state. The inexpensive fees structure is an aid and a driving reason for students of difficult financial stability and from the rural to join the college. The college crafts an environment for all-round development of students encompassing both academic and extracurricular activities. The students are hardworking, cultured, highly disciplined and have preserved the cherished values of this institution over the years. UVCE instills a zealous essence into the students which propels them to explore new realms of engineering and embark to achieve great things. Enhancing this factor is the experience that students gain learning at UVCE in a way different from the education system of most conventional engineering colleges.

Departments

The Institution currently offers Seven Undergraduate (B.E / B.Arch) Full-time, three Undergraduate (B.E) Part-time and Twenty Four Postgraduate (M.E / M.Arch.) Programmes.

The six Departments are:

- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Electronics Engineering
- Computer Science Engineering
- Architecture

(Computer Science Engineering Department offers 2 UG Courses – Computer Science Engineering and Information Science Engineering)

The Institution has awarded more than 175 Ph.D degrees. The Institution has 79 eligible faculties to guide Ph.D students and presently more than 250 candidates pursuing their Ph.D. The faculty members of the institution has presented and published more than 500 technical papers in the recent couple of years in International refereed Journals and National / International Conferences. The Department of Civil Engineering being a recognized QIP centre from MHRD, has completed more than 1000 consultancy projects. The teaching faculty has completed/ engaged in a number of R & D projects sponsored by UGC, AICTE, MHRD, AR&DB, ADA, Naval Research Board, National Highways, etc. including an Indo-European project. More than 1000 projects have been completed in Departments of Civil and Architecture.

Faculty

Presently, 110 full-time faculty members are serving the Institute, of which 69 faculty members possess Ph.D degrees. Twenty Three faculty members are pursuing their Doctoral Programme. There are 33 Professors, 45 Associate Professors and 32 Assistant Professor and one faculty member from the Department of Physical Education, Bangalore University. In addition, sixty reputed and experienced teachers are rendering their services as Guest faculty.

Students

There are around 4332 UG, PG, Ph.D students pursuing their degree at UVCE with a student teacher ratio of 1:22.5. There are 1300 women students, 1300 SC students, 130 ST students and 2400 OBC students. The transition rate of all students from 1st year to 2nd year is around 95%, the transition rate of SC, ST and OBC students are around 91%, 90% and 96% respectively.

Location and Area

The City campus is situated at K.R. Circle and is in the neighbourhood of Vidhana Soudha, Government of Karnataka. The Department of Mechanical Engineering, Department of Electrical Engineering, Department of Electronics Engineering and Department of Computer Science and Engineering, is spread over 15 acres of land, in the heart of the city at K.R. Circle. Proximity to the city bus stand and Visvesvaraya Metro Station connects one easily to any part of the city. The Departments of Civil Engineering and Architecture are located in the salubrious outskirts of Bangalore City at Jnanabharathi Campus.

Fees

The tuition fee is the least in the state with UG students paying a tuition fee of Rs. 22,430 and PG students pay an tuition fee of Rs. 31,820 .The students also pay the Exam fees separately twice per year. The PhD students fees are also to be taken into consideration. All that amounts to more than Rs.12 Crores per annum.

Placements

The Training and Placement Office was started in 1989. Nearly 80 % of the UG students and 35 % of PG students get placed through campus interviews every year. The students have been recruited by leading organizations that include a large number of globally recognized multi-national and Indian companies. The academic excellence at UVCE is reflected in its student's exemplary record in placements in the corporate and engineering sectors. UVCE has consistently maintained an excellent recruitment record.

Preserving UVCE heritage at the current location

Why UVCE should stay at K R Circle?

- Being at heart of the city has its own advantages. There are
- Students have easy accessibility to travel. Commuting to any place is easy as it is very nearby to Metro station and also Kempegowda Bus Stand.
- Security is never a concern and students can stay back late evenings in the college for either studies or campus placements. This is also a very important aspect for extra-curricular activities and events organized by students in the campus, since for the preparations and as well on the events, students stay back late and then travel to their places easily.
- Interaction among students of various departments is very easy since everyone is together. The communication is very essential to know about inter-disciplinary subjects and also is very helpful during research work.
- Evening college students find it easier to travel from their workplaces to attend classes since it's at the central hub of city.
- The location is one of the reason why many organizations/ companies prefer UVCE as a centre for conducting Seminars/Workshops. Some companies conduct campus recruitment at UVCE, inviting other colleges as well.
- Considering the historical importance, UVCE being the first Engineering College of Karnataka, has its own significance. The heritage value of the place where Bharat Ratna Sir M Visvesvaraya himself has walked around is immense. It is also a motivational factor for the students to study in such a venue which was the vision of the legend himself.
- The building has an emotional connect with the alumni across the globe. It is a "Symbol of Pride" to all UVCEians and has laid the foundation for all their achievements.

Arguments for not shifting UVCE

- If the aim is to give more space for growth, it is certainly welcome but it is possible and even, appropriate to give more space without shifting the existing KR Circle campus. It can be done by building a new 'UVCE centenary campus' in Jnana Bharathi or any other location.
- Evening College students will not be able to travel during the late hours to remote place from their working places and travel back. Around 500 students are currently studying the part-time course who will be affected by this shifting.
- Government Arts and Science College, Sri Jayachamarajendra Polytechnic, Government R C College of Commerce & Management, Maharani Arts, Science and Commerce College, Smt.VHD Central Institute of Home Science, Government Sri Krishnarajendra Silver Jubilee Technological Institute - are all in the same vicinity and are managed well. It is better to improve the facilities at UVCE which will help in further strengthening of educational hub at K R Circle.
- As proposed earlier, a separate campus can be set up at Jnanabharathi campus. For instance, apart from IISc, even IIT Delhi runs two campuses! A better example: State University of New York (SUNY) – a public funded entity like UVCE - runs 64 campuses efficiently, even when their administrative office at Albany is 460 km away from their largest campus at Buffalo! This can help in taking UVCE to a higher level altogether.
- If UVCE is to be shifted to Jnana Bharathi Campus, the necessary infrastructure is not ready. As of May 2017, the Higher Education Dept was still seeking an estimate of cost for the construction of the new UVCE campus at Jnana Bharathi! So, without any available facilities, the students-faculty will face a hard situation with the academic year in progress.
- Even considering the expenses required for construction of new buildings now at JB Campus and later the logistic expenses for shifting the lab equipments and other

commodities will be huge. Instead, immediately, work on improving the current infrastructure will be a very feasible solution.

- Take the example of Vidhana Soudha. When there was a space demand in the historic Vidhana Soudha, the state government built Vikasa Soudha and shifted some of the ministries and legislative offices! Vidhana Soudha itself was not shifted elsewhere. Because the current structure is not only more accessible but it has a historical value, it's an outcome of the vision of Sri Kengal Hanumanthiah. Similarly, UVCE is the brainchild of Mysore Maharaja Nalwadi Krishnaraja Wodeyar and Sir M Visvesvaraya.
- Even the committees appointed by government previously, NR Shetty Committee and Rudraiah Committee as well as top bureaucrats with Education Dept in the past - have said a NO to closing down of the KR Circle campus or the shifting of UVCE. The SA Kori committee which recommended the shifting of UVCE, comprises of members with no direct association with UVCE. Govt needs to consider the facts and well-being of the students and stop the shifting of college.

Present Challenges

Infrastructure

Lack of infrastructure is glaringly visible and is one of the most important problems to be tackled:

- Less Classrooms for students
- Leaking roofs at lecture halls, seminar hall, labs and workshops
- Poorly maintained restrooms
- Outdated lab equipment
- Campus maintenance and waste management

Faculty – Student Ratio

Since there are around 70 positions vacant, the faculty-student ratio takes a hit. Currently, the faculty – student ratio is around 1: 39 and this is a concern.

Lack of Exposure to latest technological advancements

Academics Curriculum need to be updated to the latest technological trends and industry expectations. Even the regular examinations are old fashioned and may not reflect the actual potential of the student. Choice Based Credit System (CBCS) is one of the options which can be adapted. More Seminars, Workshops by and for the students are means to exposing them to latest technology.

Little Industry – Academia Collaboration

Very few MoUs have been signed between college and industries. In the current trend, with new technologies emerging at a very fast pace, working with the industries, especially technology oriented startups are very beneficial to students. In terms of projects, R&D work or internships need to be considered on priority.

BU Trifurcation – increased administrative challenges

Administrative challenges faced by the students and college administration are in various ways:

- Delay in Examinations, Results and Marks card distribution
- Re-Evaluation and Examination related issues have increased.
- Graduated students need to wait for extended duration to receive their degree certificates and transcripts.
- Faculty also need to run errands to JnanaBharathi campus for various clarifications and issues.
- More challenges w.r.t administrative and financial management

Proposals

Develop infrastructure at the current location

There is a huge requirement of infrastructure development for UVCE. It can be taken in various phases. As a detailed report submitted by the Principal, the plans for building a multi-storeyed Mechanical block, Visvesvaraya Centenary block, UVCE Boys Hostel and Open Auditorium need to be considered for the long term. In the short term,

- Cleansing the campus and waste management
- Refurbishing the Restrooms
- Foundation for the multi-storeyed buildings
- 2 Floor structures for Mechanical block and Visvesvaraya block
- Canteen facility
- Servicing the lab equipment

Some arrangement with Bangalore Central University for using the Jnanajyothi Auditorium and Sports field as per the requirement will take care of the immediate concerns.

The first step has to be about utilizing the “25 Crore” fund allocate by State Govt to renovate the college infrastructure. All efforts should be channelized towards it and necessary steps to involve PWD Engineers to create the required proposal should be taken immediately. This will help in moving towards the direction of shaping UVCE into a better institution in next 10 years.

Making UVCE Autonomous – Governing Council Body for Administration & Academics

To become autonomous, UVCE should receive either NAAC or NBA accreditation. That should be the focus to begin with.

- Eligibility Criteria for Institutions from NAAC can be found in the link- http://www.naac.gov.in/Eligibility_HEI.asp
- NBA Accreditation details, process and other information can be found here - <http://www.nbaind.org/accreditation.aspx>

One of the most important requirement is to meet the student-teacher ratio, for which the vacant positions need to be filled. We will need to work with the University and Govt for the same, get the approvals and start the recruitment. It is helpful to improve the quality of education and the students will be benefitted immensely. The Self-Assessment report can be developed accordingly.

Other facilities, lab equipment, Seminars/Workshops or Collaborations with industry need to be considered as well as per the guidelines mentioned. Govt can form a Governing Council especially for monitoring the progress and making it easier to get the accreditation and autonomous status for UVCE.

Changing the Administration/Management structure of the college

The present administrative setup of the college needs to be modified on priority if the challenges in ‘College Administration’ are to be tackled in the emerging global scenario. There are many proposals made for this purpose. A committee including the Govt representatives – Faculty – Educationists – Eminent Alumni should be formed and should be asked to submit a feasible proposal within a fixed time frame.

The Academics and Administration responsibilities need to be clearly defined. Administrative Responsibilities need to have separate officers. Considering the responsibilities:

- Admissions
- Evaluation

- Finance
- Student Welfare & Development
- R&D

Academic structure also need to be defined as per the Departments and common fields:

- Department of Civil
- Department of Mechanical Engineering
- Department of Electrical Engineering
- Department of Electronics Engineering
- Department of Computer Science Engineering
- Department of Architecture
- Department of Basic Sciences, Mathematics & Humanities

All of them will need to work with the Director of the institution. Their collaboration work along with the Director, who will be a leading and experienced expert in Engineering academia will result in developing UVCE as a Centre of Excellence. The selection criteria and the structure can be finalized by the Committee formed for the purpose.

The governance needs to be independently and autonomously monitored by a Governing Council constituted for the same purpose. The members of the Council can be chosen as per the regulations prepared for this purpose and shall consist of experts from academia, public sector and industry.

Industrial and Academic Collaborations

Approaching the industries for technical collaboration will be helpful to improve the quality standards of students. It will help them to understand the current trends and gain knowledge about the cutting-edge technology in their fields of interest. The private sector companies can be invited to setup research facilities and provide lab equipment for the campus which is beneficial to raise the standards of the institution. This will be win-win situation for both the institution and as well as the companies.

Collaborating with International and National colleges will help the students to gain exposure of their counterparts, understand their process of learning and also develop skillsets required going forward. They will also get aware about the opportunities outside, develop networking and communication skills.

Establishment of 20 'Institutions of Eminence' by HRD along with UGC

The University Grants Commission (UGC) has framed the regulatory framework in consultation with the Human Resource Development (HRD) Ministry for establishment of 20 'Institutions of Eminence'. The Government would soon start the process across the country.

These institutions will be established either by upgrading the best of the existing universities and colleges in the country or as a brand new higher educational institutions from the proposals to be coming in from the private sector. The plan is to establish a total of 10 such institutions in the public (government) sector and the remaining 10 in the private sector. All public and private universities are eligible to apply for getting declared as an 'Institution of Eminence,' subject to the conditions stipulated under the scheme.

Gather more information and details about it and work with the college authorities to apply for the same. UVCE has all the eligibility to gain this status and we need to work towards it.

Alumni Involvement

How can a strong alumni network help in improving the UVCE stature?

Alumni are the brand-ambassadors of the institution they graduated from. We have seen many institutions declaring the list of their notable alumni as a way of connecting their successes with what the college has provided them.

- the alumni network of a college is one of the biggest sources of placement opportunities to the students. Alumni can help students get placed at their respective organizations.
- alumni can play an active role in voluntary programmes like mentoring students in their areas of expertise.
- alumni is a huge talent pool whose guidance can be beneficial to many students and other fellow-alumni in their respective areas of study.

Financial support from alumni end

Alumni have been working on their own capacity via various platforms and channels. From past 6 years, UVCE Foundation and VisionUVCE – two philanthropic organizations formed by UVCE alumni to support their alma-mater and students have given away Scholarships worth of 55 Lakhs to more than 575 students.

They have also contributed in small ways – servicing of lab equipment, campus cleaning, student activities and other initiatives worth of more than 3 Lakhs during this period.

Next Steps

Stop the Shifting idea

With around 2000 people already signing the online petition and overwhelming response by students, alumni and well-wishers of UVCE, Govt should stop the shifting of UVCE idea. Instead, develop a new 'UVCE centenary campus' in Jnana Bharathi or any other location. The focus needs to be developing the infrastructure at K R Circle and making it a world-class institution where students state-of-art facilities.

Implementation at Phases

Though this document speaks about next 100 years for UVCE, there needs to be long-term and short-term goals.

Long Term Goals:

- Making UVCE a “Centre of Excellence” and an internationally acclaimed institution
- Get autonomous status for UVCE and create a separate Governing Council structure
- Industry collaboration for research and project work
- Full-fledged infrastructure and lab facilities

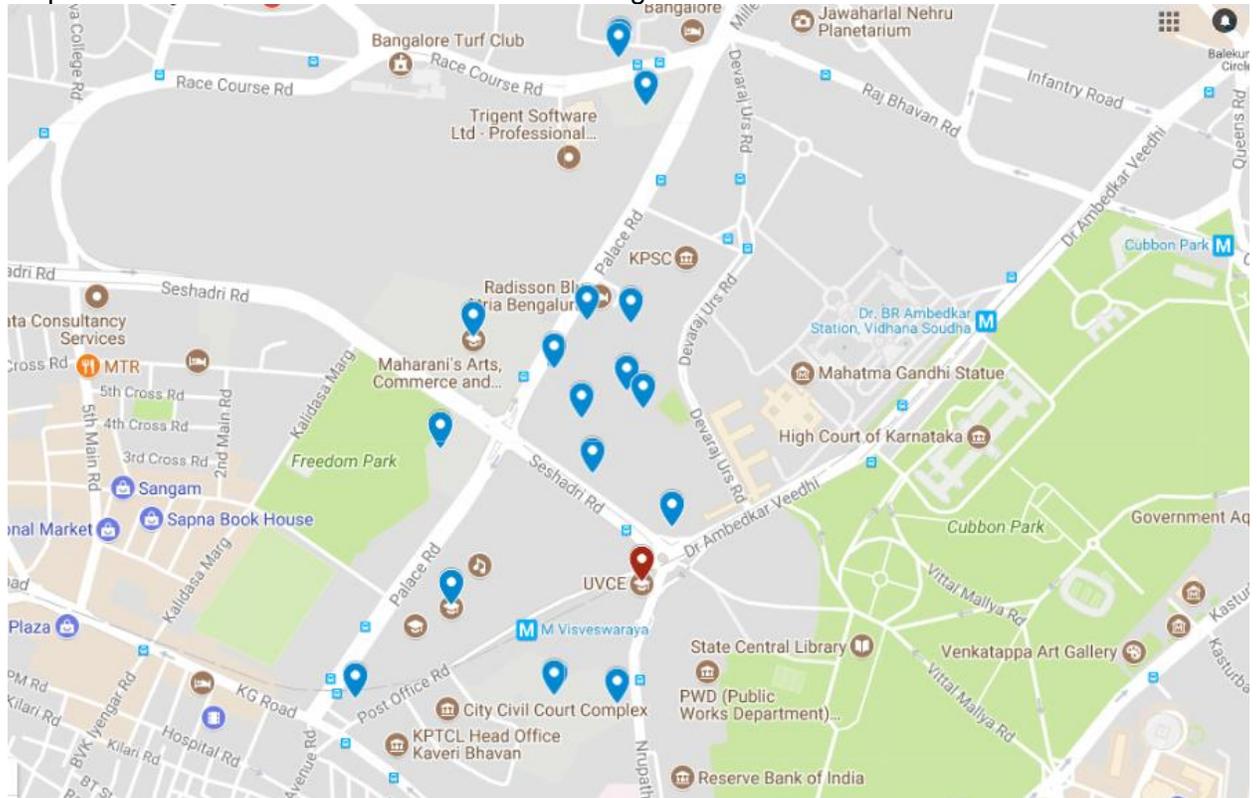
Short Term Goals:

- Utilize the Renovation fund announced by Karnataka Govt and work with PWD to make the best use of it in form of buildings and lab equipment.
- Create an Action Plan - Budget, Faculty-Alumni committee, Administration structure
- Start the work for NAAC/ NBA accreditation and parallel request the University/Govt for filling the vacant positions which is a basic requirement.
- Approach UGC to understand the procedure for applying for the status of “Eminent Institute”
- Work with alumni for industry collaboration, student development activities.

Annexure Documents

Importance of the current location of UVCE

- Map with other Educational Institutes surrounding UVCE



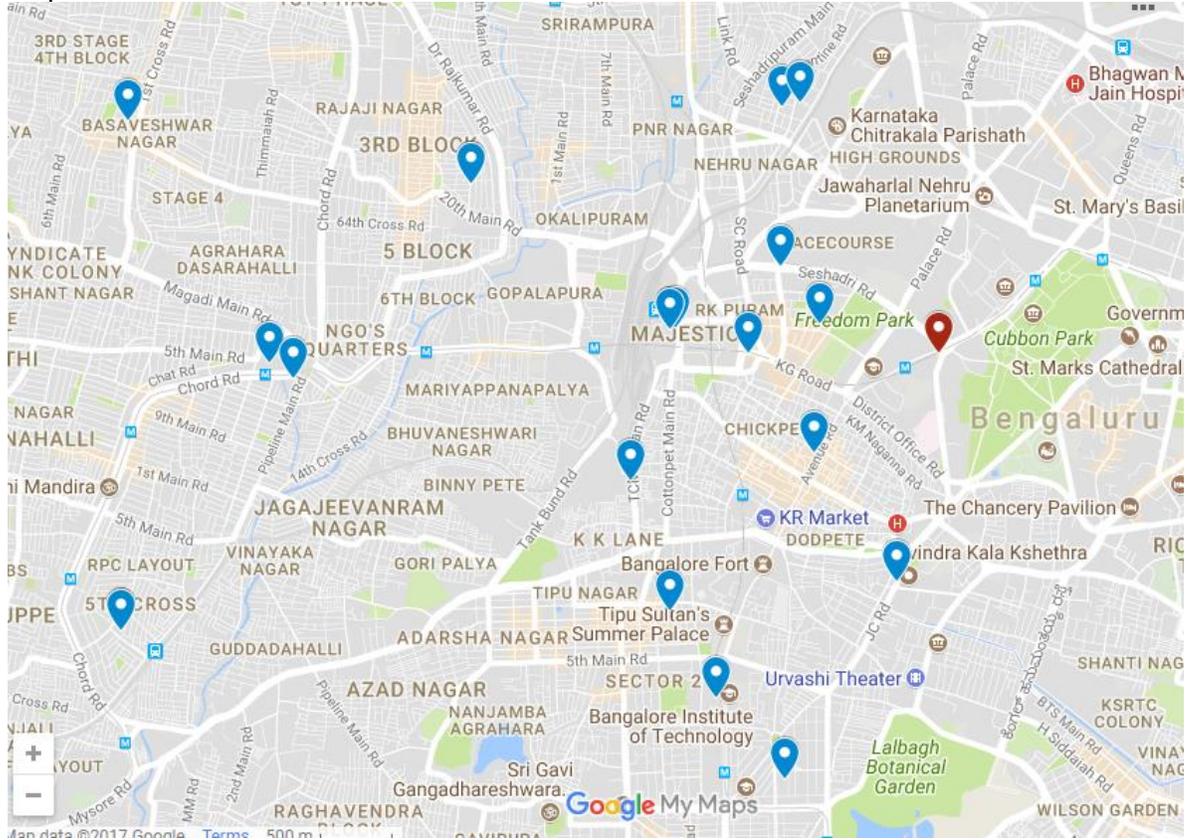
List of Institutes within the surrounding UVCE:

- Government Arts College
- Sri Jayachamarajendra Polytechnic College
- Central College Campus
- Maharani's Arts, Commerce and Management College For Women
- Smt. V.H.D Central Institute of Home Science
- Center for Management Studies
- Government S.K.S.J. Technology Institute
- Government Science College (Autonomous)
- Govt. Polytechnic for Women
- Government Institute of Printing Technology (GIPT)
- Government Girdhar Ramnarayan Institute
- Institute of Hotel Management
- Government Women Polytechnic
- Government Ramnarayan Chellaram College of Commerce and Management
- M P Birla Institute of Management
- Bhartiya Vidya Bhavan
- Canara Bank School Of Management Studies (CBSMS)

URL to view the map:

<https://drive.google.com/open?id=14cRhq4TSLcd8NmWtO8ADXf3erOA&usp=sharing>

- Map of Hostels near to UVCE



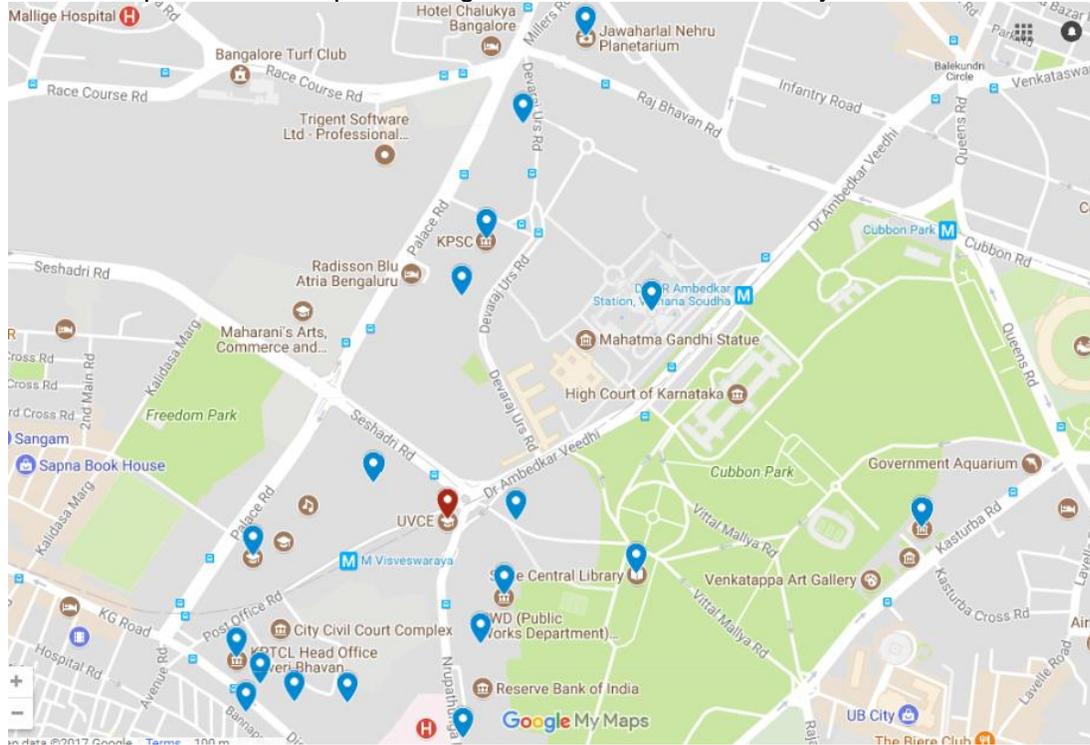
List of Hostels around UVCE:

- Vasvi Hostel, VV Puram
- BGS Hostel for Girls
- BGS Boy's Hostel
- RBDGTC Boys Hostel
- Badaganadu Sangha
- Babburkemme Seva Samithi
- Sri Kondandaramaswamy Vidyarthi Seva Sangha
- CVMS Hostel and Choultry
- Shri Sarpabhushana Shivayogi Mathade Trust Free Boys Hostel
- Gubbi Thotadappa Dharamshala
- Youth Hostel Bangalore
- Jagajothi Basaveshwara Boys Hostel
- Social Welfare Department Student's Hostel
- Kambi Siddaramanna Hostel
- B.S. Siddappa Memorial Ladies Hostel
- Kurubara Sangha Building
- Shri Madhwa Yuvaka Sangha
- Anekal Thimmaiah Balija Hostel
- Reddy Jana Sangha Hostel

URL to view the Map -

<https://drive.google.com/open?id=14cRhg4TSLcd8NmWtO8ADXf3erOA&usp=sharing>

- Map of various important organizations within the vicinity of UVCE



List of some important buildings around UVCE:

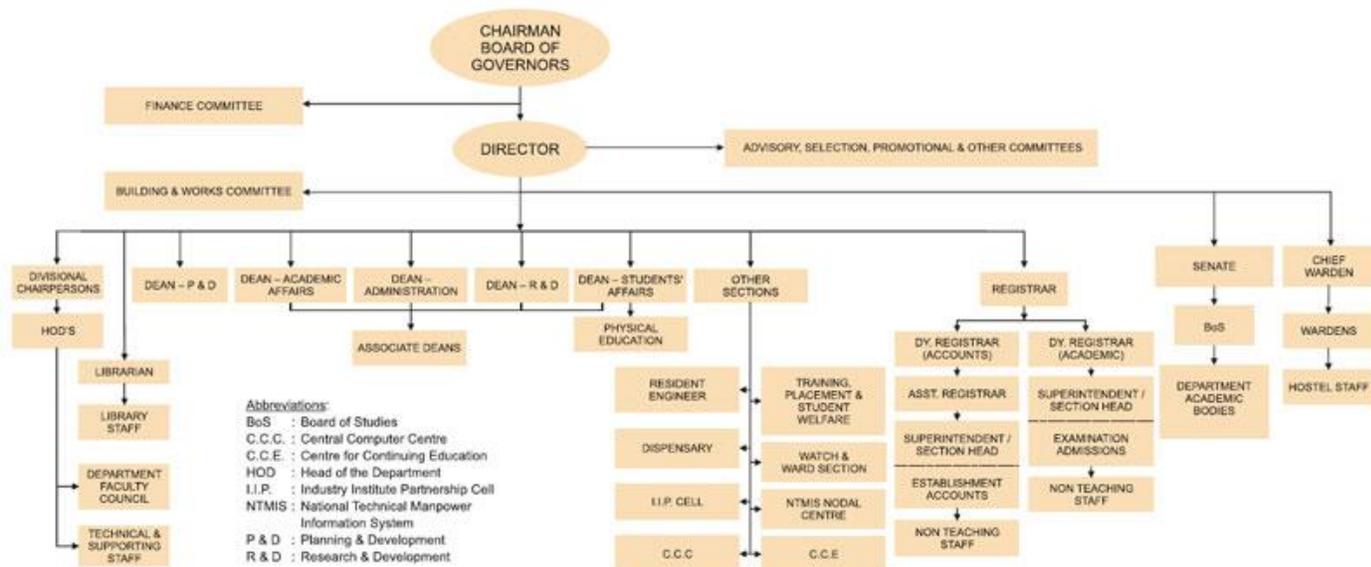
- Yavanika
- State Central Library
- Visvesvaraya Industrial & Technological Museum
- Jawaharlal Nehru Planetarium
- Vidhana Soudha
- KPSC
- D C Office, Bangalore Division
- Karnataka Information Commission
- YMCA
- Directorate Of Distance Education
- KPTCL Head Office Kaveri Bhavan
- Bengaluru Electricity Supply Company Limited
- PWD (Public Works Department) Annexe Building
- NEW TELECOM BUILDING BSNL Office
- Dept Of Agriculture
- Shikshak Sadan
- Karnataka Housing Board
- BWSSB Bangalore Water Supply & Sewerage Board

URL to view the Map -

<https://drive.google.com/open?id=14cRhq4TSLcd8NmWtO8ADXf3erOA&usp=sharing>

Structure of Administration

NITK Model



Review

A self review of the Institutional governance is regularly conducted at NITK as per the guidelines of TEQIP Good Practice Guide for Governing Bodies, December 2012.

- **PRIMARY ACCOUNTABILITIES**
 - Has the Governing Body approved the institutional strategic vision, mission and plan-identifying a clear development path for the institution through its long term business plans and annual budgets?
 - Has the Governing Body ensures the establishment and monitoring of proper, effective and efficient systems of control and accountability to ensure financial sustainability (including financial and operational controls, risk assessment and management, clear procedures for managing physical and human resources.)
 - Is the Governing Body monitoring institutional performance and quality assurance arrangements? Are these benchmarked against other institutions (including accreditations, and alignment with national and international quality assurance systems) to show that they are broadly keeping pace with the institution they would regard as their peers and competitors to ensure and enhance institutional reputation?
 - Has the Governing Body put in place suitable arrangements for monitoring the head of the institution's performance?
- **OPENNESS & TRANSPARENCY IN THE OPERATION OF GOVERNING BODIES**
 - Does the Governing Body publish an annual report on institutional performance?
 - Does the Governing Body maintain, and publicly disclose a register of interest of members of its governing body?
 - Is the Governing Body conducted in an open manner, and does it provide as much information as possible to students, faculty, the general public and potential

employers on all aspects of institutional activity related to academic performance, finance and management?

- **KEY ATTRIBUTES OF GOVERNING BODIES**
 - Are the size, skills, competences and experiences of the Governing Body such that it is able to carry out its primary accountabilities effectively and efficiently, and ensure the confidence of its stakeholders and constituents?
 - Are the recruitment processes and procedures for governing body members rigorous and transparent? Does the Governing Body have actively involved independent members and is the institution free from direct political interference to ensure academic freedom and focus on long-term educational objectives?
 - Are the role and responsibilities of the Chair of the Governing Body, the Head of the Institution and the Member Secretary serving the governing body clearly stated?
 - Does the Governing Body meet regularly? Is there clear evidence that members of the governing body attend regularly and participate actively?
- **EFFECTIVENESS AND PERFORMANCE REVIEW OF GOVERNING BODIES**
 - Does the Governing Body keep their effectiveness under regular review and in reviewing its performance, reflect on the performance of the institution as a whole in meeting its long-term strategic objectives and its short-term indicators of performance/success?
 - Does the Governing Body ensure that new members are properly inducted, and existing members receive opportunities for further development as deemed necessary?
- **REGULATORY COMPLIANCE**
 - Does the Governing Body ensure regulatory compliance and subject to this, take all final decisions on matters of fundamental concern to the institution.
 - Does the regulatory compliance include demonstrating compliance with the 'not-for-profit' purpose of education institutions?
 - Has there been accreditation and /or external quality assurance by a national or professional body? If so, give details: name, status of current accreditation etc.

Technology Enabled Curriculum

BITS Pilani

In 2013, Birla Institute of Technology and Science (BITS), Pilani, India's premier independent University, along with BITSAA, its global alumni association, launched a first of its kind multi-million dollar cross-campus technology initiative named BITSConect 2.0. Pioneering a unique model of multi-campus education in India, the initiative comprises Immersive Telepresence, High-definition Video Conferencing and Live Streaming technologies that are set to transform the learning experience by connecting all campuses at an unprecedented scale. This University-Alumni initiative was launched simultaneously at Pilani, Goa and Hyderabad campuses, while being connected to Cisco's offices in San Jose and Boston, jointly by Prof. Bijendra Nath Jain, Vice Chancellor, BITS Pilani and Raju Reddy, Chairman, BITSAA, in the presence of His Excellency the Governor of Goa, Shri Bharat Vir Wanchoo and Shri J Satyanarayana, Secretary, Department of IT, Government of India.

BITS Pilani aspires to be among the top research-driven institutions in Asia by 2020. On course to realize its vision, BITS Pilani became one of the first Indian universities to set up IP Telephony, Gigabit Ethernet and Wireless accessibility on campus with BITSConect 1.0 in 2003. With this latest initiative, the University takes a giant leap forward in using technology for education. By bridging the geographical distance across campuses and global knowledge

centers, this platform will facilitate collaboration among its faculty, students, industry partners and alumni, for education, research and mentorship.

During that particular semester, BITS Pilani offered more than 14 specialized electives to 1000s of students across its campuses by professors working from any of its campuses. To collaborate, Faculty and Staff no longer needed to travel. Academicians from across the world will be able to collaborate with and mentor research projects in BITS via Immersive Telepresence.

Industrial Consultancy and Sponsored Research

IIT Madras Model

Through industrial consultancy, faculty and staff undertake assignments for industry that may include project design, testing and evaluation, or training in new areas of industrial development. Industries and organizations request the IIT faculty to undertake assignments channeled through the Centre For Industrial Consultancy and Sponsored Research (ICSR).

National organizations sponsor programmes of research by funding projects undertaken by the faculty. Such research is time bound and allows project participants to register for a degree. Project proposals are usually prepared by the IIT faculty and forwarded to interested organizations, based on the nature of their research and their interest to fund such projects.

Sponsored projects are often vehicles for new resources within departments, and often permit their project staff to register for academic degrees in the institute. All sponsored research activities at the institute are coordinated by ICSR.

One of the first experiment - The IIT Madras Research Park, the first of its kind to be established in India, functions to propel successful innovation in established companies and provide a nurturing ecosystem to startups through incubation efforts and technical infrastructure.

IIT Madras Research Park endeavour to enable companies with a research focus to set up a base in the Park and leverage the expertise of IIT Madras. It is modeled the lines of successful Research Parks such as Stanford, MIT and Harvard. These technology parks have been known to add value and impetus to industry and business enterprises. The macro guiding principles behind the park are:

- Creating a collaborative environment between industry and academia through joint research projects and consulting assignments
- Creating a self-sustaining and technologically fertile environment
- Encouraging and enabling R & D activities that are aligned to potential needs of the industry.
- Providing world class infrastructure for R & D activities.
- Enabling development of high quality personnel and motivating professional growth for researchers in the companies through part time Masters and PhD Programs.

IIT Madras Research Park has a proprietary CREDIT system to measure the extent of collaboration between a company and IIT Madras. CREDIT is an acronym for Collaboration in Research and Engagement with Departments in IIT Madras. The Research Park is not a real estate proposition. It is an ecosystem that facilitates R&D and innovation. Success is premised upon adequate engagement between the companies and IIT Madras. The CREDIT system merely ensures that the necessary levels of engagement continues on a sustained basis to ensure the companies benefit out of the ecosystem. Hence each company has to earn a certain minimum number of Credits each year depending on the space occupied.

Stanford University Model

The university's endowment, managed by the Stanford Management Company, was valued at \$22.2 billion in August 2015, 3.6% over the previous year recession, but posted gains of 14.4% in 2010 and 22.4% in 2011, when it was valued at \$16.5 billion.

Stanford has been the top fundraising university in the United States for several years. It raised \$911 million in 2006, \$832 million in 2007, \$785 million in 2008, \$640 million in 2009, \$599 million in 2010, \$709 million in 2011, and \$1.035 billion in 2012, becoming the first school to raise more than a billion dollars in a year. In 2013 and 2014 it raised \$932 million and \$928 million. Payouts from the Stanford endowment covered approximately 23% of University expenses in the 2014 fiscal year, compared to Princeton at 55% and Harvard at 35%.

In 2006, President John L. Hennessy launched a five-year campaign called the Stanford Challenge, which reached its \$4.3 billion fundraising goal in 2009, two years ahead of time, but continued fundraising for the duration of the campaign. It concluded on December 31, 2011, having raised a total of \$6.23 billion and breaking the previous campaign fundraising record of \$3.88 billion held by Yale. Specifically, the campaign raised \$253.7 million for undergraduate financial aid, as well as \$2.33 billion for its initiative in "Seeking Solutions" to global problems, \$1.61 billion for "Educating Leaders" by improving K-12 education, and \$2.11 billion for "Foundation of Excellence" aimed at providing academic support for Stanford students and faculty. Funds supported 366 new fellowships for graduate students, 139 new endowed chairs for faculty, and 38 new or renovated buildings. The new funding also enabled the construction of a facility for stem cell research; a new campus for the business school; an expansion of the law school; a new Engineering Quad; a new art and art history building; an on-campus concert hall; a new art museum; and a planned expansion of the medical school, among other things.

Alumni Involvement – A Newspaper Article

India should study the U.S. experience to foster alumni participation and corporate support, and lower the cost of higher education and make it relevant

Back in the late 1990s, responding to a call from my alma mater, the University of Arizona, I reluctantly made a \$100 gift to the university. To my surprise, the dean of the business school left a voice message the next day thanking me, saying my gift quadrupled with corporate matching. He suggested that the gift be used to support students and improve the quality of education. That reluctant relationship blossomed — every year after that, I created a small endowment at the University of Arizona to support a needy student. There are two important issues in the above example: alumni engagement & corporate support in higher education, both important for Indian colleges going forward. They can lower the cost of education & fundamentally transform the educational experience for students.

Let us look at the cost side. The cost of attending higher education institutions in India is moving in the direction of the U.S. universities. Despite public outcry, tuition fees in most U.S. universities continue to increase each year. Among the state universities, one of the reasons for this is the declining government funding as a percentage of the university budgets. At my university, the state of Texas funded 85 per cent of all educational costs in 1970. Today, the state pays around 13 per cent.

The Indian government subsidized higher education in government institutions to the tune of 90 per cent in the 1990s, but has recently asked various institutions to become self-reliant. This is leading to dramatic increases in tuition fees at premier institutions and is expected to worsen.

To offset this higher tuition fees, new educational loan programmes have been instituted through banks. These actions look a lot similar to those in the U.S.

Today, in the U.S., over 43 million students have borrowed a staggering \$1.3 trillion. Since 2006, the total debt has increased 300 per cent. The availability of student loans has unintended consequences. Access to loans makes it easy for colleges to increase tuition fees since students do not have much of a choice. That is why loan availability correlates heavily with higher tuition fees.

Mitch Daniels, the president of Purdue University, argues that there are broader societal consequences. "Home buying, marriage, child-rearing and even moving out of the family house are all now commonly delayed because of student debt," he says. He argues that potential innovators seek traditional pay cheques to pay off loans rather than to pursue entrepreneurial lifestyle. Before the situation gets out of control, the government and various institutions need to explore ways to contain the cost of education and proactively engage alumni and corporations to avoid societal costs.

Alumni engagement

Most U.S. universities now focus on engaging alumni both to raise funds and to improve the educational experience for students. At the University of Texas at Austin, the alumni association called Texas Exes gave \$3.45 million in scholarship to 641 students in 2015-16. This does not include alumni support to individual colleges on campus. The U.S. universities nurture the culture of pride and loyalty to their institutions. Alumni are emotionally committed to the success of their alma mater. There are both intrinsic and extrinsic motivations and rewards in supporting universities.

We frequently hear of capital campaigns from numerous universities to raise large amount of funds to support scholarship, faculty research, buildings, and so on. These funds are required to attract bright students, and advance knowledge, innovation, and teaching. The University of Texas just raised \$3.12 billion in its campaign. Other major capital campaigns include Harvard University at \$6.5 billion, Stanford University at \$6.2 billion, Cornell University at \$4.75 billion, and Yale University at \$3.9 billion. Indian colleges may have to think similarly to advance opportunities and knowledge.

We are beginning to see college rankings include alumni giving-rate as one of the factors. This is an indirect way to measure how institutions are engaging their alumni and leveraging successes of those students to enhance their own educational mission. Alumni bring context and practical relevance to what is being taught in the classroom. An incoming student is more likely to be influenced by a recent graduate than a professor on the relevance of topics to his or her career. Mid-career alumni can reinforce the aspects of schooling that impact their day-to-day life. Often they can relate to the students better than the faculty does.

Universities increasingly rely on industry projects or capstone classes to provide experiential learning. Often it is the alumni who help arrange projects for professors & assume a mentoring role. Alumni are a great resource during the recruiting process. They are brand ambassadors & advocates for students. Colleges that have a deeper engagement with alumni also have an easier time placing their students. Engaging alumni early on will help students find internships & firms can identify promising talent. Furthermore, alumni can help with mock interviews to prepare students to do well in the process of searching for jobs.

Corporate engagement

Corporate engagement not only brings financial resources, but also helps with recruitment efforts, change, and innovation in universities. The executives who represent corporations bring credibility and act as brand ambassadors. In the U.S., it is a matter of pride for executives to be part of universities and various programmes. Corporations have equal responsibility as, or even more than, the government in developing talent that benefits them and society. Corporations know their needs for talent and skills better than the government. Corporations must play a significant

role in developing talent rather than just being consumers of the talent. They have to invest in the future.

Here's a case in point. I proposed a Master's programme in business analytics where there is significant shortage of talent in the U.S. A major retailer, whose chief financial officer is an alumnus of McCombs School of Business and a member of the McCombs Advisory Board, committed \$3,00,000 as seed money to jumpstart this programme. We were quick-ly able to assemble ten companies from different industries with similar need for talent to support our initiative. Many of these companies sponsored capstone projects where students apply their learning to solving real problems and gain practical experience in how to communicate with executives. As faculty, we were able to understand the need for different skills and types of problems industry is trying to solve. Industry has opportunities to seek advanced knowledge from faculty research.

Corporations can engage in allowing their employees to teach specialised classes. We have senior managers from Google and Dell teaching in our programmes. They bring practical knowledge and academic rigor to students that supplement the learning process. If universities and colleges in India need to prepare students for the 21st century, they have to engage their alumni and corporations actively. This engagement is a partnership that benefits all stakeholders.

(Borrowed from "The Hindu" - Prabhudev Konana is Distinguished Teaching Professor & William H. Seay Centennial Professor of Information Management, Department of Information, Risk & Operations Management, McCombs School of Business, Austin, Texas.)

Some Statistics about Alumni as an asset

Alumni are a great asset of Universities and Colleges and their backing a common ingredient of the top Universities in the world. Even though IIT and IIM's have started receiving alumni funding, it is a fraction of what UK and USA Universities are receiving who have a long history of contribution of alumni to the development of educational institutions.

Charitable donations to colleges in the US hit a record \$40.3 billion in 2015 and Stanford reclaimed the top spot with a record-setting \$1.6 billion. Stanford and Harvard—which came in second—are the only universities to top \$1 billion in a single year of fundraising, a ceiling Stanford broke a few years ago.

Among the top 10 schools, an average of around 53 percent of former students donated and Non-alumni contributed 23% more to universities.

At the same time, the money spent by institutions in attracting new donations shot up to 36p in average cost per pound received in cash, up from 22p the previous year.

The annual Ross-Case survey found that UK universities secured £1.06 billion in philanthropic income in 2015-16, up from £861 million in 2014-15.

A review of philanthropy commissioned by the Higher Education Funding Council for England in 2012 set a sector-wide annual donations target of £2 billion by 2022.

Action Items

SHORT TERM

1. Infrastructure Related Focus

- Fix the leaking roofs
- Temporary fix for the Mechanical Workshops
- Make the Seminar Hall presentable
- Renovate Restrooms
- Clean-up the scrap items in few rooms and vacate those rooms
- Clean the area near Open Air Auditorium

How?

- Prepare a DPR for the same and approach the Govt to release some amount from 25 Crore at the earliest.
- Principal and HODs must be pressurized to make use of this grant, since it will be lost by next Budget if not used. Few alumni should be approached to help in getting the DPR done and funds released

2. Canteen

- A hygienic canteen is very much required for the students.
- It should be cost-effective as well

How?

- Approach BBMP for setting up "Indira Canteen"

3. Waste Management inside College

- Dustbin collection points in college.
- Segregation of bio-degradable waste and others
- Increase green cover in the campus

How?

- Approach some NGOs for support
- Maintenance of the same can be self-sustained.

4. Improve Library, Cyber and Lab Infrastructure

- Make e-library more accessible
- Improve Wi-fi facility in campus
- Lab equipment and systems in cyber center should be upgraded

How?

- Prepare a DPR for the same and approach the Govt to release some amount from 25 Crore at the earliest.
- Alumni working at MNC can be support the cause under CSR activity in their respective companies.

5. Introspect and apply for UGC's proposal for Institutions of Eminence (IOEs)

- A complete detailed report has to be submitted before December 12th, 2017
- If successful, will help in securing Govt grant over the next few years.

How?

- The details of eligibility conditions, selection process, autonomy to be provided, monitoring, review, etc have been provided in these Regulations and Guidelines which are available on UGC Website should be studied
- A panel of senior alumni members and faculty should be setup immediately and worked in detail for submitting the proposal as per the requirement.

LONG TERM

1. A Governing Council to be established

Constitution and Functions

The Governing of the Autonomous Institution shall be done through the Governing Council. The Chairperson of the Council shall be reputed Educationist/Scientific/Professional. He shall be appointed by the Government. The other members of the board of Council shall be nominated by Government, University, UGC/AICTE who can be either Educationist, Scientist, Industrialist, Professional who will be interested in making UVCE a CoE. The Director of the Institution will be the Ex-Officio, Member Secretary of the Governing Council.

The tenure of the Members of the Board of Governors is 2 years except for the UGC Nominee whose term will be a full 6 years. While granting complete autonomy, the managerial and administrative changes are to be made as per the guidelines given by the Government of Karnataka and Ministry of Human Resource Development, Government of India.

An autonomous institution shall have autonomy in the following respects:

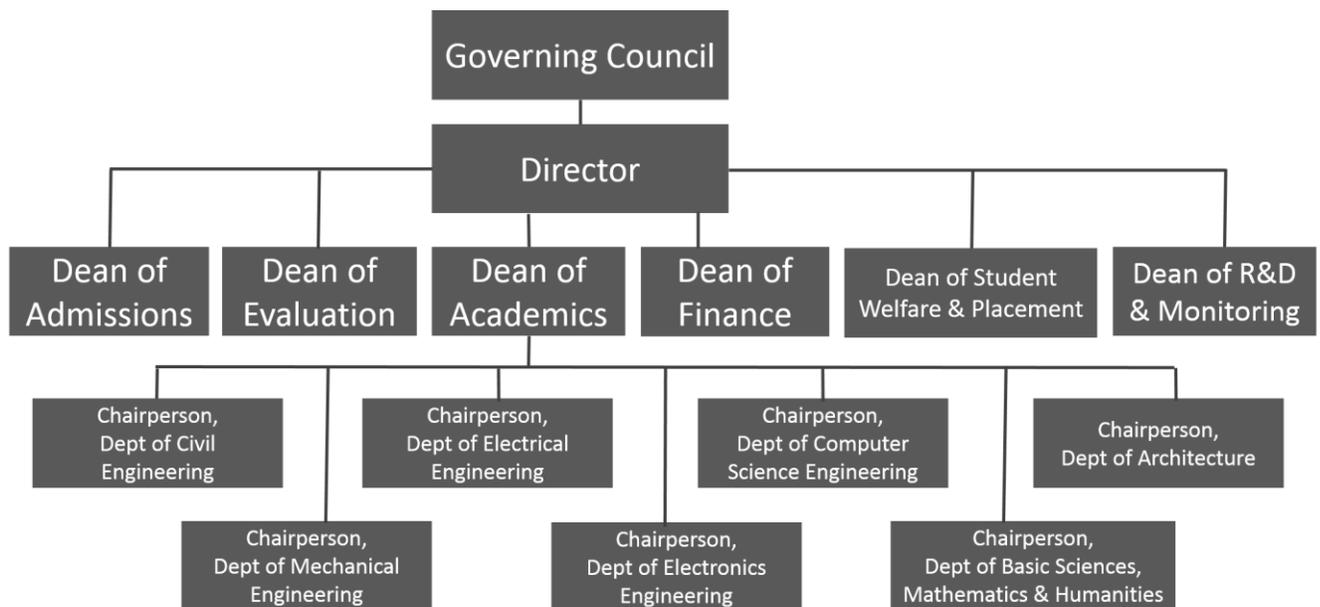
- To decide the development programme of the institution
- To decide the staff pattern (except the approved posts) and the Human Resource Development policy.
- To decide the service conditions of the new employees
- To make purchases of materials and hire services as per the requirements.
- To hire the services such as, security, gardening, transport etc.
- To organize research, academic programmes, consultancy services, seminars, and collaboration with best institutions/universities/industries in the world. To implement continuous education programmes, and to provide services to industry and society.
- To take help of the reputed teachers from the other states/foreign countries and the experts from industries to improve the academic standards.
- To decide the policy of the generation and distribution of internal revenue.

Without prejudice to the generality of the foregoing, the Governing Council shall have the following powers, namely:-

- To manage and regulate the finances and all other administrative matters of the Institution and for that purpose to appoint such agents as it may deem necessary and proper.
- To enter into, vary, carryout and cancel contracts on behalf of the Institution;
- To appoint examiners, moderators and if necessary to change or to remove them, to fix their fees, emoluments, travelling and other allowances;
- To make arrangements for the conduct of examinations prescribed by the Statutes, Ordinances or Regulations;
- To receive, acquire, hold, control and administer the properties of the Institution, both movable and immovable and to invest the funds of the Institution judiciously in appropriate schemes;
- To cause to be maintained proper accounts of the properties and funds of the Institution;
- To prepare the financial estimate of the Institution and to submit the same to the Academic Council.
- To administer and control the hostels, libraries, laboratories, museums maintained by the Institution;
- To regulate, supervise and control the residence and discipline of the students of the Institution within the campus and its annexes and to promote their health and wellbeing;

- To constitute and regulate the working of the Employment Bureau and the Bureau of Information. Development Plan for next 100 Years of Academic Excellence University Visvesvaraya College of Engineering
- To delegate such of its functions to the Director as may be prescribed by the Statutes.
- To select a common seal for the Institution and to provide for its custody and use.
- To arrange for the conduct of litigation by or against the Institution.
- To create, abolish and transfer the posts of Professors, Associate Professors and Assistant Professors or any other posts of teachers required by the Institution on the recommendation of the Academic Council.
- To Institute fellowships, travelling fellowships, scholarships, studentships, exhibitions, medals, prizes and certificates on the recommendation of the Academic Council.
- To confer honorary degrees, titles or other academic distinctions on the recommendations of the Academic Council.
- To enact, amend or repeal Statutes,
- To confer the title of Professor Emeritus on the recommendation of the Academic Council.
- To make Statutes for creation of posts.

2. Administration Structure



Under Each Department, there can be multiple UG, PG and PhD Courses. The responsibilities of each Dean need to be clearly defined. And as mentioned earlier, there needs to be a self-evaluation model for each of the sections and department which will help in improving it further. The main goal of the restructuring needs to be focused on creating a sense of ownership among the people incharge and give a single purpose of making UVCE a better place.

3. Autonomous Status

Making UVCE Autonomous has been one of the most critical needs of the hour. More detailed plan is required on obtaining the status via convincing the Govt for the same and as well as work with the University to approve the status.