



An Initiative from

**Sri. M. S. Ramaiah**

**Navkis**

**College of Engineering, Hassan**

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

**KIADB Thimmanahalli Industrial Area, NH-75, KANDALI-573217, HASSAN, KARNATAKA**

# **INSTITUTION STRATEGIC PLAN-2022**



# **INSTITUTION STRATEGIC PLAN-NCEH**

## **About NCEH**

### **About Navkis College of Engineering**

Navkis College of Engineering, Hassan, is an educational institution started by the Yagachi Education and Research Trust, (in the style and name of NDRK Institute of Technology in the year 2009) now under the patronage of Ram's Education Foundation, Bengaluru which is managed by the family of Late Dr. M.S. Ramaiah, renowned Industrialist, Philanthropist, Visionary, and Educationist. Navkis College of Engineering, Hassan, is characterized by a management cognizant of and committed to education with a rich heritage and experience and qualified and motivated faculty members with select proficient seniors and is functioning under the outstanding leadership of Sri M R Anandaram as chairman. The college is located in a serene picturesque landscape spread over 12 acers with good academic ambience with all infrastructure and facilities necessary for quality engineering education. The Institute offers 5 UG courses- Artificial Intelligence & Data Science, Artificial Intelligence & Machine Learning, Civil Engineering, Computer Science Engineering, Electronics & Communication Engineering.





## About Hassan

Hassan is a city and the district headquarters of Hassan District in the Indian state of Karnataka. The town is situated 980 m (3,220 ft.) above sea level. The urban population in 2011 was 133,436. GEOGRAPHY: - Lying between  $12^{\circ} 13'$  and  $13^{\circ} 33'$  North latitudes and  $75^{\circ} 33'$  and  $76^{\circ} 38'$  East longitude, Hassan district has a total area of 6826.15 Sq. Kms. It is situated at a distance of 182 km from the state capital, Bengaluru, 120 km from Mysuru and 166 km from Mangalore. Hassan district was the seat of the Hoysala Empire which at its peak ruled large parts of south India from Belur as its early capital and Halebidu as its later capital during the period 1000 - 1334 CE. World famous tourist places Beluru, Halebidu and Shravanabelagola are within 30 Kms from Hassan.





Bahubali-Shravanabelgola



Hoysala Iconic Symbol at Belur



Halebidu Temple



Hemavathi Dam-Gorur



Belur Temple: Famous for worlds best Sand stone carvings

## **History:**

**Navkis College of Engineering, Hassan (NCEH)** is a state-of-the-art technical institution that provides an ideal atmosphere to the students to grow into world-class engineers. It was started in the year **2009-10** by **Yagachi Education and Research Trust** than its takeover by the **NDRK Educational Trust** and is **under the patronage of Navkis Group of Institutions, Bengaluru, from the year 2019-20**. The College is located in a peaceful picturesque landscape providing a good academic ambience, supported by premium infrastructure and facilities necessary for imparting quality engineering education.

The College is characterized by a management cognizant of and committed to quality education and experienced, qualified & motivated faculty members.

## **Academic units and programs**

MCE offers undergraduate Bachelor of Engineering (B.E) programmes in nine disciplines, namely:

- B.E in Civil Engineering
- B.E in Computer Science and Engineering
- B.E in Electronics and Communication Engineering
- B.E in Artificial Intelligence and Data Science
- B.E in Artificial Intelligence and Machine Learning

## **Salient features of the campus**

- A serene location with good academic ambience
- Individual Departments with well-equipped Laboratories and Staff rooms
- Two Hostel Blocks, one for boys and one for Girls inside institution premises.
- A well established and spacious Central Library
- A green campus with rain water harvesting and LED street lighting
- Wi-Fi within the campus with a 100Mbps leased line
- Yoga and meditation centre
- De-mineralization Plant for Drinking Water

## **Team Members of Institution Strategic Plan committee**

**Chairman:** Sri. Anandram M R

**Member GC:** M.A. Navakoti Ram

**Chairman Nominee:** Dr. H.S. Mohana- Principal

**Dean-Operations:** Dr. H. S. Prabhakara.

**Members:** Dr. Myna A N-Vice Principal.

Dr. Vishwanath NR- HOD of ME.

## **Library**

The college has an exhaustive library with more than 16 thousand volumes and has a well-furnished Reference section. The library subscribes to national and international journals in print and on-line versions in various fields of Science, Engineering and Technology. E-library facility is also provided to the fellow students for the access of online journals. In addition to this, each department has an In-house library.

## **Central Library- Resources**

- ❖ Total collection of 16,000 Volumes (including Book Banks) 3224 Titles
- ❖ E-Learning materials through consortium and resources via CDs
- ❖ Encyclopedia, Handbooks, Dictionaries, Bound volumes of Periodicals, Student Project Reports
- ❖ Subscription to National print & IEEE, ASME and ASCE, ACM International on-line technical journals
- ❖ Internet Facility
- ❖ Reprographic Facility

## **Hostels**

The college has a boys' hostel on the campus that accommodates 150 students. A girl's hostel located on the campus which accommodates 80 students.

## **Other facilities**

The facilities in the campus include a branch of BOB ATM, a RO plant to supply drinking water, Wi-Fi facility to the entire campus and hostels, a cooperative society, a canteen, a meditation centre-, an auditorium with 200 sitting capacity.

## **Student organizations**

### **Technical club:**

The mission of the Technical club is to build a complete persona in technology by sharing knowledge, providing opportunities to implement hypothesis in quotidian tasks and make society a better place to live in. The club extends to all aspects of technical things.

The association with this club will augment interest of students in practical technological domain and galvanize their creativity to innovate through practical learning and application-oriented mind-set. The club aims to prepare students for industry and make them self-sustainable as per futuristic industrial and social engineering requirement

### **Cultural club:**

Cultural club of NCEH is responsible for all the cultural events in the Institute around the year. NCEH cultural club strives to bring out the hidden talent of the students of the college. It is the place where students can showcase what they have got. It helps to discover their talent. Cultural events include competitions such as instrumental, singing, dance etc. Every year this club organizes activities such as Talent Hunt, Fresher's Party, Farewell, Fest and Alumni Meet. Cultural club also celebrates festivals such as Holi, Republic Day, Independent day etc.. which creates a vibrant atmosphere in campus.

### **Sports club:**

Our Sport Club community an opportunity to participate in a broad variety of sports and recreational activities. All programs are based on student interest and designed to enhance the Navkis experience by creating an environment where students can unite in diverse groups to achieve common goals and objectives while encouraging healthy lifestyles. Sport Clubs provide a valuable learning experience through student involvement in fundraising, public relations, organization, administration, budgeting, scheduling, teaching, and leadership development. The clubs with the most success and stability are those with active members and dedicated officers

**Annual events:**

College Fest-(Nexplore)

Orientation day for Fresher's

**Other events:**

Red cross events

NSS camp event

Cultural day

Sports event

**Newsletter:**

Our newsletter is a printed report containing news concerning the activities, technical article, general article, art, achievements etc. Our organization every year presents 2 volumes of Newsletter for each semester. Our newsletter presents the institute Functioning and improvement in the view of technology, cultural and society.

<https://navkisce.com/pdf/2019-20even.pdf>

<https://navkisce.com/pdf/2020-21even.pdf>

<https://navkisce.com/pdf/2020-21ODD.pdf>

<https://navkisce.com/pdf/2021-22even.pdf>

<https://navkisce.com/pdf/2021-22odd.pdf>

[New fletter-ieven--20-ssue-1\NCEH-ECE News letter Volume 1-2020.pdf](#)

[New fletter-ieven--20-ssue-1\NCEH-ME News letter Volume 1-2020.pdf](#)

[News letters-Odd-21-issue-2\Civil Newsletter Odd.pdf](#)

[News letters-Odd-21-issue-2\Electronics and Communication Newsletter Odd.pdf](#)

[News letters-Odd-21-issue-2\Mechanical Newsletter Odd.pdf](#)



### **Notable alumni:**



**Name: Chandan Kumar B K.**

**Working Company: FINISTRA**

**Designation: Quality Assurer**

**Year of Passing: 2021-22**



**Name: Harsha H S.**

**Young Entrepreneur**

**Year of Passing: 2021-22**

### **Environmental Scan**

#### **Technical Education Scenario:**

Worldwide and Nationwide

Technical education in India contributes a major share to the overall education system and plays a vital role in the social and economic development of our nation. In India, technical education is imparted at various levels such as degree, diploma, PG and research in specialized fields catering to the various aspects in technological development and economic progress. The intake capacity of institutions offering technical education has increased manifold over the years. To maintain high quality and for proper planning and coordinated development of the technical

education system in the country, Government of India has established a statutory body called All India Council for Technical Education (AICTE) during 1987. The AICTE aims at regulation and maintenance of norms and standards in the technical education system. Worldwide scenario of technical education varies naturally according to economic strength, educational heritage, civilization and sometimes local demands of the particular country. Developed countries have more of a liberalized pattern of technical education, while African and Asia-Pacific countries still tend to follow a centralized system. The Indian Government after independence started premiere institutes of Higher learning, the IITs along with the existing institutions. This followed by the starting of NITs and Government Engineering colleges. India has the tradition of private participation in Education. This resulted in good number of Engineering and technology Institutes spread over the country. In India the National Board of Accreditation was established just before the dawn of 21st century in line with ABET and other world level accreditation bodies. This has made a phenomenal change in the quality and approach of technical education all over the world, as a result the Outcome Based Education Evolved. During 2013-14 government of India signed the Washington accord which resulted in global acceptance of Engineering graduates from accredited institutions.

The union government is giving impetus to the manpower development with global competence to capture global requirement. In the budget significant money has been provided to Higher education, and other initiatives such as Skill India, start-up India, make in India and Stand up India.

### **Engineering and Technical Education in Karnataka state and region:**

The Karnataka state is one of the major contributors to the Engineering and technical education at national and international level with significant participation from both state Government and private sector. At present the state has more than 200 Engineering colleges. Earlier technical institutions were under different Universities. During 1998 the Visvesvaraya Technological University came into existence and as its outcome engineering institutions are now under one Umbrella. The last two decades have witnessed phenomenal growth in Engineering education in Karnataka region. At present more than 20 institutions along with one NIT in this region among which 4 institutions are located in Hassan including NCEH. A recent development is that a good number of colleges are enjoying autonomous status and becoming private universities.

The state government is giving impetus to manpower development with global competence by creating conducive environment for engineering and technical education. This has resulted in Bangalore earning the name Silicon Valley of India. The MNCs from all over the globe have their production and research activity in the state. This has been percolated to this region also. In the past decade Hassan has become an educational hub encompassing four Engineering institutes, HIMS, BVSc and Agricultural University. This contributed to the growth in associated education like MBA, MCA and Diploma. Earlier Hassan and other districts in the Malnad region were known for agricultural and allied industrial activity. In the last decade Hassan region has been identified as SEZ. This resulted in necessary infrastructure and funding.

Recent survey shows establishment of significant number of textile, granite, IT and agricultural related Industries.

### **Background Information and situation analysis:**

- Established during the year 2009
- Serving the cause of technical education of MALNAD (Land of Hills) regions – Hassan, Chikmagalur & Coorg Districts.
- Started by philanthropists.
- A sought after Technical institution in the region
- Has a sprawling campus of about 10 Acres.
- Affiliated to VTU, Belgaum since inception.

A key premise is that NCEH should foster a range of abilities, some of which extend beyond formal classroom work. For example, students at NCEH should learn:

- to understand the values and beliefs of multiple cultures
- to embrace moral and ethical values
- to participate in community and civic affairs and engage with social problems
- to use knowledge in their own lives and pursue lifelong learning
- to develop leadership and teamwork skills
- to care for themselves and manage physical and emotional needs responsibly

These abilities have direct relevance to many of the changes in the world noted above, and thus it is reasonable to infer that NCEH students need preparation in these skills for successful lives, professionally and personally. This makes outside-of-the-classroom educational experiences increasingly important to the development of such abilities. NCEHs tradition for public service or engagement and international scope provides many relevant opportunities.

To conceptualize learning outcomes in more comprehensive terms, the Institution has developed a set of core competencies, distinguishing academic and personal abilities, as follows:

### **Academic Competencies**

- Disciplinary Knowledge
- Critical Thinking
- Communication Skills
- Scientific and Quantitative Reasoning
- Self-directed Learning
- Information Literacy
- Engagement in the process of discovery or creation

## **Personal Competencies**

- Multicultural Competence
- Moral and Ethical awareness
- Self-management
- Community engagement

## **Staff -Strength - Teaching Faculty:**

40+member teaching faculty

## **Technical & Supporting Staff:**

60 + member technical & Supporting Staff.

## **MOUs with Industries / R&D Organizations**

- Jyothi Institute of technology
- Upswing
- GT&TC Mysore
- Loginware
- 10Seconds

## **Achievements since commencement of Institution**

- Timely submission of necessary documents to VTU
- Encouragement for Best projects across the departments
- Cash award for branch toppers
- Exclusive training programme on Communication skills and soft skills spread across first sem to seventh sem to help the rural students which enables them to compete with peers during placement process and procedure.
- Introduction of Mini projects and project based learning
- Adopting Good Governance practices
- Involvement of Alumni in mentoring projects
- Increasing the bandwidth from 20 Mbps to 100 Mbps.
- Addition of 300 computers
- ICT enabled classrooms
- Many national level MOUs
- Involvement of Industry experts in teaching

## **SWOC ANALYSIS**

### **Strengths**

- Highly motivated, experienced Faculty & Staff
- A 13-year young institution with least attrition rate
- Well planned and adequate infrastructure
- Active Alumni base
- Envisioned management with well experienced advisory board

### **Weaknesses**

- Located geographically away from metropolitan city Bangalore
- Absence of related industry around Hassan
- Majority of the students from the same region with poor socio-economic background
- Difficulty in attracting very good industry experts offline to the campus for teaching and training.

### **Opportunities**

- Getting funded projects at State/Central level
- Good ambience for R&D with young faculty having Ph. D
- Growing up to the level of setting Administrative and Financial Autonomy
- Pandemic have created an opportunity that work from home and virtual offices, hence the advantage for rural colleges.

### **Challenges**

- Two GECs and one aided Institutions in and around will become impediment in attracting merited and socio-economically backward students
- Being an institution located in a rural area, the quality of students at entry level is poor.
- Realisation of Quality faculty structure is very tough as most does not want to move away from city.
- Financial implication with existing fee structure against sixth AICTE scale implementation



## GAP ANALYSIS

Sl. No	Item on Agenda	Current status	Gap Analysis 2022
<b>Academics</b>			
1.	Teaching learning process	Co- teaching Unit wise involvement of industry persons	<b>Gap:</b> <ul style="list-style-type: none"> <li>• Minimum involvement of industry persons to teach core courses</li> <li>• Well defined methodology for weak learners. Every department has faculty coordinator for academically weak students</li> <li>• Emphasis on self-learning courses</li> <li>• Emphasis on open book examination</li> </ul> <b>Suggestions:</b> <ul style="list-style-type: none"> <li>• Well- qualified industry personals can be invited for co –teaching in elective subjects only.</li> <li>• Self-learning courses should be incorporated.</li> <li>• Estimation of signals and system should be there as an elective or compulsory subject.</li> <li>• Students may allow to opt for interdisciplinary elective courses.</li> <li>• Verticals are required to be re-defined and allow students to choose elective courses from the same vertical.</li> <li>• UG Project credits can be increased and well defined evaluation process needs to be followed.</li> <li>• Virtual instrumentation course can be added as an elective at UG level.</li> <li>• Tutorials need to be incorporated in curriculum for core courses.</li> <li>• Project based evaluation rubrics should be strictly followed at PG level.</li> <li>• One day in a year is marked as event in calendar as Scholars day.</li> <li>• More audit courses to be added in curriculum.</li> </ul>
2	Hiring top class faculty	Less qualified Ph.D holders	<b>Gap:</b> <ul style="list-style-type: none"> <li>• Number of faculties are not highly qualified and less experience</li> </ul> <b>Suggestions:</b> <ul style="list-style-type: none"> <li>• Hiring highly qualified with great experience faculties .</li> </ul>

3	Student to faculty ratio	1: 25	<b>Gap:</b> Both the institutes are having 1: 19 students to faculty ratio <b>Suggestions:</b> Institute may initiate the process of recruitment to improve student to faculty ratio
4	Placement	Near about 70% placement of UG	<b>Suggestions:</b> Make attempts to improve UG placement
5	Publications/patent	Very Few publications at UG level. Few of journal publication at Ph.D.	<b>Suggestions:</b> <ul style="list-style-type: none"> <li>Encourage faculty members to publish their research work.</li> <li>UG projects should lead to product development, eventually IPR.</li> <li>Provision for funds is recommended to support extra pages in publication in reputed journals.</li> </ul>
6	Research projects and MoUs	Working to get grant for research case	<b>Suggestions:</b> <ul style="list-style-type: none"> <li>Encourage the faculty to write the research paper to get the grant for the particular.</li> <li>Dept's should apply for FIRST grant immediately</li> </ul>
7	Involvement of alumni	We observe every year silver jubilee celebration of UG batch	<b>Gap:</b> <ul style="list-style-type: none"> <li>Alumni have strong support in the development of lab infrastructure to set up special purpose facilities and lab equipment.</li> <li>Alumni also supports in the development of infrastructure in setting up new schools and centers.</li> </ul> <b>Suggestions:</b> <ul style="list-style-type: none"> <li>Encourage alumni to fund for lab development</li> <li>Create alumni chair professor in the department supported by Alumni.</li> </ul>
8	Infrastructure and space	Dept.'s is currently functioning with short in space	<b>Gap:</b> Space is not a concern for expansion and to set up new centers <b>Suggestions:</b> <ul style="list-style-type: none"> <li>Space is the main concern</li> <li>Intake can be extended only with the provision of the adequate space</li> <li>Institute may sanction equal space to cater new research center and classrooms for starting of dual degree programme</li> </ul>

## Vision

To be an illustrious institution imparting quality engineering education and, prepare globally accredited and socially responsible professionals.

## Mission

- To establish state-of-the-art facilities and a conducive environment for education and research.
- To collaborate with academia and industry.
- To foster Professional ethics, Innovation, and Entrepreneurship.
- To fulfil social obligations.



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**Motto:** *Shraddavan Labhate Jnanam*

(**Meaning:** Only those desire to acquire Knowledge will end up in acquiring it)

## **NCEH Core Values**

The Core values for which NCEH continues to adhere to its purpose by

- Providing high quality undergraduate and graduate programs that will equip students with 21st century knowledge and skills necessary for the challenges of India and the world
- Affirming its role as the AICTE approved institution by providing citizens with opportunities and access that will enhance their lives and enable them to develop intellectually, economically, socially, and culturally
- Demonstrating shared-governance and responsibility through recognition of the viewpoints that various members of the university community contribute to the institution
- Appreciating diversity in its student body, faculty, staff and administration through civility, commitment to tolerance, freedom of expression, and celebration of other cultures
- Adhering to the highest standards of honesty, fairness, trust and integrity in both personal and professional behaviour
- Promoting student centeredness as the heart of the educational enterprise; and
- Focusing on character development through learning and leadership experiences.

## **Major Goals-Strategic Plan**

This strategic plan of NCEH emphasizes the importance of educationally rich national, international and public engagement experiences under the supervision of faculty. This emphasis involves a focus on what are stated under "personal competencies" above, but it also implies that personal competencies should be addressed in the context of academic work that enhances academic competencies. Thus, the plan gives special emphasis to those educational activities that interconnect academic and personal competencies.

## **Broad Strategic Directions**

Following are four strategic themes that identify broad directions for responding to the challenges in MCE's changing external and internal environment. These themes are manifest in several objectives and actions proposed in subsequent sections of this plan:

- *Focus*
- *Adaptability*
- *Coordination*
- *Efficiency*

*To become more focused*, it is necessary to make difficult choices about which academic areas or units to emphasize and which to de-emphasize; what to keep and strengthen; what to downsize or eliminate.

*To become more adaptable*, NCEH's administrative arrangements and structures need to be more flexible, to be evaluated and changed on a continual basis, and to have fluidity so that they do not become set in stone.

*To introduce more coordination*, the institution needs more permeable boundaries and connectivity across academic fields, disciplines, programs, and colleges, so that both students and faculty can cross these boundaries or transcend them when opportunities to enhance academic excellence emerge and also to ensure that the institution uses its intellectual resources efficiently and effectively.

*To be more efficient*, NCEH needs to examine administrative structures and policies carefully, with an eye toward creating a tighter fit between our methods of accomplishing tasks and the institution's goals and aspirations.

Greater focus and connectivity are essential to preserve and enhance academic excellence, whereas greater adaptability and efficiency are especially critical to the stewardship of resources. Implementation of these broad directions would need to respect and affirm the longstanding principles of collegiality and shared governance.

**NCEH Strategic Goal I: Develop, strengthen, and implement academic programs that are responsive to the NCEHs mission and are systematically reviewed for sustained quality, relevance, and excellence to meet the challenges of a highly competitive and global workforce.**

**Sub-Goal 1: Promote and support college readiness and retention to graduation.**

Strategy I: Develop and implement a plan for institution engagement in local schools/colleges that focuses on career education for SSLC/PUC/12th/Diploma with parent involvement. (During ensuing admission)

Strategy II: Establish a "**Kids Tech garden**" (academic enrichment program) to build an aspirant of NCEH pipeline to postsecondary education. (two-years)

Strategy III: Develop and implement a comprehensive institutional academic enhancement program for incoming students to improve their academic skills and success in college.

(continuous)

**Sub-Goal 1I: Expand the capacity to offer unique and/or critical undergraduate, post-graduate, and professional academic programs that address national and regional workforce needs.**

Strategies I: Conduct a needs assessment/feasibility study to identify new critical academic programs and modify curriculum to the changing world. (annually)



Strategy II: Identify and implement skill development programs in advanced technological domain both for students and faculty. (continuous)

Strategy III: Increase the number of adjunct faculty from Industry, Management and Research organization. (one year)

**Sub-Goal 1II: Promote and support institution readiness to adopt present and Future technological development.**

Strategy I: Acquire and install state-of-the-art equipment and technology for teaching, testing, consultancy and research. (three years)

Strategy II: Involve faculty and students in research that leads to innovation. Continue steps to establish Innovation and Patent cell.

Strategy III: Provide professional training in grant writing and program implementation.

(continuous)

Strategy IV: Encourage departments to seek new ways of increasing resources continuously.

(continuous)

Strategy V: Establish incubation centre and/or technology park for the region. (two years)

**NCEH Strategic Goal II:** Enhance institute infrastructure to accommodate increase in intake, research, economic development, technology development and transfer; contribute to an enhanced quality of life in the region; and facilitate sustainable domestic and international economic development and competitiveness.

**Sub-Goal 1: Enhance the infrastructure and facility in tune with changing technological needs**

Strategy I: Construction of Lecture Hall Complex with all state of the art facilities. (1+1+1 Yrs)

Strategy II: Construction of Multi storied Central Facility Complex with all state of the art facilities. (2+2+1 Yrs)

Strategy III: Enhance the captive power facility by deploying Solar panels on all the buildings and become self-reliant. (2Yrs)

Strategy IV: Enhance the internet connection bandwidth and Wi-Fi to support the 5G and future development communication technologies. (1 Yrs.)

**Sub-Goal 1I: Enhance interdisciplinary research opportunities to impact the quality of life for the region.**

Strategy I: Develop programs that will prepare faculty and students to address environmental problems in the region and State. (continuous)

Strategy II: Seek and/or strengthen on-campus collaborative grant opportunities. Use the skills and knowledge of faculty, staff and students to work in collaboration with communities to improve the quality of life for the region through outreach activities. (1+1+1 yr)

**Sub-Goal 1II: Increase revenue opportunities for faculty and students.**

Strategy I: Continue to institute scholarship funds for both students and faculty, and support other opportunities that provide incentives and promote productivity in research and other scholarly work.

Strategy II: Establish specialty training centres that are funded through state and union government contracts (e.g., computer education, e-commerce, traffic control and skill India)

Strategy III: Introduce entrepreneurship concepts across the curriculum and establish an Entrepreneurship Centre to engage the institute and community. (2Yrs)

**NCEH Strategic Goal III:** Promote and sustain a campus environment that supports a high quality of life and learning, that positively impacts retention through graduation and produces knowledgeable and culturally competent citizens able to lead effectively and compete globally.

**Sub-Goal I: Upgrade teaching-learning process to create impact.**

Strategy I: Continue implementation of Skill Laboratory initiatives and evaluate them for impact and "best practices."

Strategy II: Infuse more research and creative activities in courses to improve learning experiences of undergraduate students.

Strategy III: Increase funding to support current and future transformational initiatives and encourage more faculty participation.

Strategy IV: Starting of online courses offered at the institution.

**Sub-Goal II: Upgrade instructional technology services.**

Strategy I: Improve technical support and faculty training for classroom instruction and student engagement.

Strategy II: Provide more SMART classrooms.

Strategy III: Increase staffing for information technology, instructional technology and classroom technology to ensure adequate support levels for faculty, staff and students.

**Sub-Goal II:** Increase student retention to impact successful completion of graduation within the prescribed period of four years.

Strategy I: Develop an implementation plan that improves student support and advising services, enhances students' level of satisfaction, and results in higher retention and graduation rates.

Strategy II: Constitute a **Retention Committee** which include parents to develop, implement, and assess changes to positively impact retention and increase four-year graduation rates.

Strategy III: Provide additional scholarships for need-based students. (academic and economic basis)

Strategy IV: Increase resources and continue to provide a summer bridge program in Mathematics and Applied Science for incoming/lateral entry students.

Strategy V: Identify reasons why students leave after their 1st and 2nd year and factors that lead to poor academic performance; plan appropriate programs to address the problems.

Strategy VI: Conduct analyses to identify variables (e.g., CGPA, SGPA, etc.) that show what makes incoming students need to be successful.

### **Sub-Goal III: Improve the teaching/learning environment. Strategies**

Strategy I: Reduce faculty class room teaching and train them to take-up other facets of holistic Education.

Strategy II: Reduce faculty/student ratios to meet the national average.

Strategy III: Establish a mentoring program for new and untenured faculty.

Strategy IV: Hire additional faculty in critical needs areas, especially general education.

Strategy V: Promote a culture of **civic engagement** by implementing **service learning** as a component of the academic experience tied to the curriculum and university outreach efforts.

Strategy VI: Increase financial support for students, faculty, and staff who present research papers at regional,

Strategy VII: Establishment of a career oriented centre to train the students for participation in IAS / IPS / IES / IRS / IFS/GATE courses. Helping some teachers to get trained on these issues.

**Sub goal IV: Improve the quality of campus life**

Strategy I: Regular conduction of cultural programs involving ethnic communities - celebration of major national festivals

Strategy II: Motivating students to become members of college clubs and professional societies and to actively participate (Provide Incentives).

Strategy III: Improve and augment hostel, sports and recreation facility.

Strategy IV: Improve the campus ambience through proper illumination, beautification and maintaining greenery.

**NCEH Strategic Goal IV:** Improve academic interaction and participation of institutes / universities of national and international eminence in order to facilitate learning, innovation and research.

**Sub goals**

**Sub-Goal 1: Enhance MOU with foreign universities.**

Strategy I: Develop an interactive cell in the Institution to interact with authorities of different foreign universities and venture establishing MOU with them.

Strategy II: Connect with the Institutes and Industry with whom already MOU is established, to seek greater/improved avenues of collaboration.

Strategy III: Contact other Deemed Universities to study and explore the possible avenues of collaboration with respect to the facilities established by them.

**Sub-Goal 2: Promote interactive collaboration with neighbouring, well performing Autonomous Institutions reputed Engineering colleges.**

Strategy I: Contact Institution of repute which are performing well, to interact and look for opportunities of academic expertise exchange.

Strategy II: Seek a higher degree of cooperation for facilitating a meaningful, creative innovation.

Strategy III: Contact other Engineering colleges to work together in selected domains for research to be sponsored by either or both or other funding agencies.

**Sub-Goal 3: Establishing a hub of Institutional academic expertise-NCEH out reach.**

Strategy I: Creating a database of institutional academic expertise.

Strategy II: Canvassing the academic exchange programs offer possible.

Strategy III: Share 'Study materials' or 'Project guidance service' at a reasonable cost and extending Skill Lab support to neighbouring Educational Institutions.

**Sub-Goal 4: Creating an Engineering consultancy centre, catering the technical consultancy need of the region.**

Strategy I: Establishing a team of skilled engineers and technical staff in various domains of Engineering consultancy.

Strategy II: Marketing the services that can be rendered.

Strategy III: Bringing creativity in the nature of services.

**Sub-Goal 5: Actively involving faculty in e-learning platforms.**

Strategy I: Getting connected with other e-learning centre of VTU.

Strategy II: Developing web based e-learning contents of the specifically identified courses.

Strategy III: Promoting the culture of active involvement in e-teaching programs, amongst the faculty members.

**Sub-Goal 6: Enhance student and faculty capabilities to work with world class Institution/universities.**

Strategy I: Enabling students and faculty to learn German, French and Japanese language. Further, elevating it as mandatory credit course for UG students.

Strategy II: Encourage student and faculty exchange programs adopting the institution for immersion, dual degree and collaborative research

Strategy III: Promoting the culture of active involvement in e-teaching programs, amongst the faculty members.

**NCEH Strategic Goal V:** Continuous and involved participation of MCF-ISRO, agricultural university and Horticulture college around NCEH in teaching learning process and research leading to joint mini and micro satellite driven drones with the participation faculty and students.



## **Sub goals**

### **Sub-Goal 1. Involvement of people in the field of space technology, agro-tech and progressive agriculturists. in the curriculum activities of the Institute.**

Strategy I: Inclusion of MCF-HSN/ISRO-BNGLR, Infosys, Wipro Technologies. scientists in Advisory Board and BOS of E&C, Mech., CSE and AI&DS Depts.

Strategy II: Identifying and involving the alumni who are in the field of Aerospace Engg., Avionics & Space Engg. in curriculum activities of UG programmes of CSE, AI&DS, E&C & Civil Dept.

### **Sub-Goal 2: Creation of knowledge about Drone and Unmanned air vehicles in the institution**

Strategy I: Introduction of new courses like Design of drone structures in the

Strategy II: Introduction of new courses like Space Vehicle Instrumentation in the curriculum of E&C UG programme and development of skill lab in the domain.

Strategy III: Deputing faculty from all branches of engineering and sciences for short term and long term training programmes in the design and execution of Aerospace structures to premier Institutes like IITs.

### **Sub-Goal 3: Development of Centre Space technology in the Institute with the help of MCF-ISRO Hassan.**

Strategy I: Starting of UG programme in Aerospace Engg.

Strategy II: Appointment of Adjunct faculty from ISRO-BNGLR, HAL, NAL and ADA for Mech. and E&C PG programmes.

Strategy III: Entering MOU with MCF/ISRO, DRDO, HAL, NAL and ADA in developing existing laboratories of E&C and Mech. Depts.

### **Sub-Goal 4: Development of Centre for Satellite Mission in the Institute.**

Strategy I: Setting up of new lab in Aerospace Engg.

Strategy II: Encouraging UG students of CSE and E&C stream for the design and fabrication of micro satellites which will cater the need and necessity of society of the region.

Strategy III: Identifying the team of faculty and UG students through qualifying aptitude test who are interested in the field of design, fabrication & execution of Aerospace structures/Space structures and entrusting them the responsibility of Mini/Micro satellite mission (NAVSAT) with adequate infrastructure and financial support.

<b>Members of Institution Strategic Plan committee</b>		
<b>Designation</b>	<b>Name</b>	<b>Signature</b>
<b>Chairman</b>	Sri. Anandram M R	
<b>Member GC</b>	Sri. M.A. Navakoti Ram	
<b>Principal &amp; Coordinator</b>	Dr. H.S. Mohana	
<b>Member: Dean-Operations</b>	Dr. H. S. Prabhakara.	
<b>Member: Vice-Principal</b>	Dr. Myna A N	
<b>Member: TPO</b>	Dr. Vishwanath NR	