

R&D

OUR VISION

Shall be responsible to encourage research, consultancy and development activities by faculty of all departments. All R&D proposals for sponsored research are to be routed through Dean R&D who processes and recommends to Principal, VCE consideration. HODs have to submit their departmental respective research proposals through Dean R&D who forward them to Principal, VCE for consideration. All the Deans shall monitor the progress on their relevant activities and submit reports to Principal, VCE for taking appropriate action.

AIM

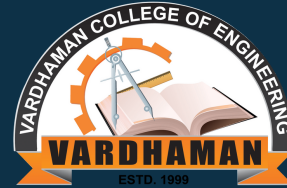
- Initiating the strategic research plan for the College and strive for it's implementation.
- Nurture a research-friendly environment that encourages faculty and Ph.D scholars to achieve their research goals.
- Administer the internal and external funding of research projects.
- Facilitate relations between researchers and administration.
- Oversee the compliance of researchers with international, state and university regulations.

Innovation at Vardhaman

We at Vardhaman College of Engineering educate students on how innovation will enable them to take advantage of the tremendous opportunities. Engineering is one such field which allows great scope for innovation. Vardhaman College of Engineering has research centers like “center for data science and AI, cloud computing, cyber security. These centers help students to improve on emerging technologies which can even be patented. Center for cyber security has filed 4 patens along with students in Machine learning.

At Vardhaman College of Engineering, students do lots of learning and research. Our students initiated to start 10 startups in incubation center. Expert’s lectures, Workshops, and conferences are organized to help students master in emerging technologies. Research centers at Vardhaman College of Engineering help students in providing innovative solutions to existing challenges; transform innovative ideas into a successful business, and to become creative thought leaders.

Dr. M.A. Jabbar
Professor, CSE
Secretary, IEEE Hyderabad Section
Computer Society Chapter



JOURNAL METRICS

Indexation of a journal is considered a reflection of its quality. Indexed journals are considered to be of higher scientific quality as compared to non-indexed journals.

Scopus indexing

Scopus is a bibliographic database containing abstracts and citations for academic journal articles. It covers nearly 22,000 titles from over 5,000 publishers, of which 20,000 are peer-reviewed journals in the scientific, technical, medical, and social sciences.

Science Citation Index (SCI)

It is a citation index originally produced by the **Institute for Scientific Information (ISI)** and created by **Eugene Garfield**. The larger version (**Science Citation Index Expanded**) covers more than 8,500 notable and significant journals, across 150 disciplines, from 1900 to the present. The **SCI** and **SCIE** indexed journals are very reported journals. According to **Thomson Reuters**, the basic difference is saving pattern means **SCI** journals are specifically saved in form of CD/DVD, but also they are the sub-set of **SCIE** journals.

H-index and i10-index

The **i10-index** was created by **Google Scholar** and used in Google's my citations feature. The indexing measure for any journal is the number of publications it has with at least 10 citations. The **h-index** on the other hand is a factor determining both the quantity and the quality of a scientist's research output. The index is based on a list of publications ranked in descending order by the number of citations these publications received.

Web of Science

It is an online subscription-based scientific citation indexing service originally produced by the **Institute for Scientific Information (ISI)**, now maintained by **Clarivate Analytics** (previously the Intellectual Property and Science business of Thomson Reuters) which is also very popular.

- **Dr. M.A. Jabbar**
Professor, CSE

Rural Women Technology Park - Kacharam (RWTP-K)

It is a DST funded project undertaken by Vardhaman College of Engineering to improve economic conditions of Telangana Farmers. The project leverages women empowerment and education to efficiently transform the society.

Batches of small and marginal women farmers (from in Shamshabad Mandal of Rangareddy district of Telangana state) are enrolled, introduced and given complete training in cultivation of Low Volume High Value (LVHV) crops. The training includes regular class room lectures in local language by Agronomy experts, practical/ field work, visits to processing industries etc. The training is followed by assisted trial cultivation by women farmer in her field and technical support for subsequent crops. The park also acts as a link between farmer and the forward marketing linkages.

Quinoa and Chia have been considered as LVHV crops for this project, started Dec 2016. So far one batch of women farmers from 4-5 Villages in Shamshabad Mandal has been trained in farming of Quinoa. The beneficiary women farmers have collectively harvested more than 4 Quintals of Quinoa in last season ending February 2018. Cultivation of Chia, another LVHV crop, is introduced to another batch of beneficiaries in second phase (starting June 2018). The initiative on assisted Quinoa cultivation shall also be taken up by RWTP-K in Oct 2018. The second part of project encompasses value added products from LVHV crops and Village/ farm waste. Use of Solar drying is also considered for promotion amongst women farmer to save perishable farm product and preserve value. This three year project (Grant-in-Aid, > 62 Lakhs) shall complete its objectives by Dec 2019.

- **Dr. Hari S. Jain**
Dean (R&D)
Sr. Member (IEEE)

ACCELERATING RESEARCH AT VARDHAMAN

Global scientific and industrial research is dominated by Academic institutions, except for a fraction of research by industry owned research establishments. The dominance is attributed to abundant availability scientists and research infrastructure (in the form of laboratories) at most academic institutions. Research is published with an important and Nobel objective of improving the global state of intellect with time. Research work reported covers many field like; basic or fundamental research, digital simulation, process improvement (leading to better efficiencies) etc. Of several modes available for information dissemination, the preferred modes for reporting are conferences, journals, copy rights, patents etc.

Relevant research and its growth at any academic campus are controlled by two key parameters i.e. “Passion for research” and a “positive research environment”. Irrespective of research type (incremental or disruptive) complete immersion and association with subject is paramount for any researcher. To claim research, individual or the team shall experimentally verify and record their findings and the process outputs. To fulfill this requirement, adequate research infrastructure (laboratories, equipment and instrumentation) at campus is second basic requirement for research. Availability of large academic base has never been a guarantee to quantum research output. The growth of an institution and its research output multiplies multifold for availability of both. Availability of experienced guides and field expert enrich research environment and significantly accelerate pace of research.

“Time for research” has always been hyped as a constraint, however one needs to introspect and explore the fact that a day for other outstanding national/ international researchers too has only 24 hours. An excellent researcher never complains about time, but manages his activities justifying individual’s passion for research.

While it is important for institutions to allocate and invest a fixed percentage of their earnings towards research, it is also the wisdom of a researcher to establish his work specific environment by meticulous planning and adding specific equipment using in-hand grant-in-aids.

At Vardhaman College of engineering, on one hand we have an appreciable base of scientists and engineers in the form of faculty, on other hand the Management is more than committed to improve both research infrastructure and laboratories to provide “positive research environment” (Specific research equipment /facility shall be identified and budget requirements, landed cost for best equipment and supplier, shall be submitted to Dean R&D by March 31st every year for compilation and further procurement action). The VCE Management also supports a cumulative research funding of Rs. 10.0 Lakhs to research enthusiasts at VCE for proof of concept research proposals.

- **Dr. Hari S. Jain**
Dean (R&D)
Sr. Member (IEEE)

DST PROJECTS

File No.

SEED/TIDE/2018/61

Project Title

Design and development of low power – low cost monitoring system for arrhythmia in elderly and young adults

Investigators

Y. Pandu Rangaiah
J. Krishna Chaithanya

CONGRATULATIONS

Dr. T. Raghunadha Reddy, Associate Professor was awarded **Ph. D** from **JNTUH Hyderabad**

RECOGNITION

Dr. M. A. Jabbar, Professor of CSE Dept. recognized and awarded as **Outstanding Reviewer** by **Elsevier**.

PAPERS PUBLISHED

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