

From the commencement of the TEQIP Phase II, Sub component 1.2, R.V.College of Engineering (RVCE) has come a long way in achieving the Key Performance Indicators of TEQIP-II as per its original IDP, inspite of withdrawal of financial support for the various procurements planned in the IDP. The progress is in all fronts including expansion of PG Programs in Engineering, enhancement of Quality of the education and R&D activities and Industry academic interactions. Since then a small fine tuning or refining of the Vision statement and the Mission of the college has also been carried out. The refined statements are as below:

**VISION**

“Leadership in Technical Education, interdisciplinary Research & Innovation, with a focus on sustainable and inclusive Technologies”

**Mission**

- To deliver outcome based Quality Education, emphasizing on experiential learning with state of the art infrastructure.
- To create a conducive environment for interdisciplinary Research & Innovation.
- To develop professionals through holistic education focusing on individual growth, discipline, integrity, ethics and social sensitivity.
- To nurture industry-institution collaboration leading to competency enhancement and entrepreneurship.
- To focus on technologies that are sustainable and inclusive, benefiting all sections of the society.

New missions were added during TEQIP to make campus environment friendly with respect to water, Energy and Waste Management with a target line of December 2016

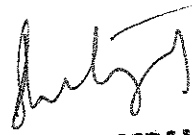
- ✓ **Zero Water discharge from campus**
- ✓ **Zero Energy consumption Campus from Grid**
- ✓ **Zero Waste discharge from campus**

In this regard already **Rain Water** is being harvested to the tune of 10 Million liters annually and 2.5 Million liters of **Sewage** treatment plant is functional. 114KW of **Renewable energy** (Solar & Bio-Mass) is being generated and another 400KW are planned for 2015. Already 30% of the waste including Garden Waste is usefully utilized.

As per the Strong industry institution linkages have resulted

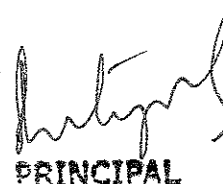
All this has resulted in R.V.College of Engineering being recognized by various institutions as a leading institution. To claim this achievement following are some of the recognitions conferred on RVCE and its faculty as well as student community:

- RVCE was selected as “**Engineering College of the year 2014 in Academic Excellence**” by **Higher Education Review Magazine, Dec. 2014.**
- RVCE has been awarded “**Sustainable Institute Industry Partnership SIIP-2014**” Award, by the Society for Educational & Entrepreneurship Development (SEED)-Chennai, at IIT Chennai Aug.,2014.

  
**PRINCIPAL**  
R.V. College of Engineering  
Bangalore-560 059

- RVCE was felicitated as a **“Great Place to Study in India”** in the *House of Commons, British Parliament, London, UK*, by Skill Tree Consortium in collaboration with Economic Times Now and UK partners, June 2014.
- **“Bharatiya Vidya Bhavan National Award”** for an Engineering College having best overall performance for the year 2013 at the 43<sup>rd</sup> Annual Convention of ISTE Kolhapur, Maharashtra, on Dec., 2013.
- **“Best Engineering College in Higher Education and Research”** awarded by VIT University in 2013 and VTU CANUES, NRDF Award March/ April 2013
- RVCE was recognized as an **“Evangelistic Institution transforming HE”** in India 2013 by Skill Tree & ET Now TV.
- Ranked among the **top 6 Technical Institutions in the country for Industry linkages** by AICTE-CII-PWC Survey, 2012.
- RVCE was awarded **“Best Innovative Spirit Award”** at CII Innovation Conference in March, 2012.
- Many senior faculty were invited to Chair Sessions and give talks in International Conference in India and Abroad.
- Asha Bhat, 7<sup>th</sup> Sem. ECE Dept. , was crowned Miss Supranational 2014, held in Poland and becoming the first Indian to clinch the crown since its inception. Asha is now doing community activities under UNICEF.
- Mr. Yashas D of 3<sup>rd</sup> Sem. Computer Science was conferred with prestigious **“EKALAVYA AWARD”** by the Government of Karnataka for his contribution in the field of CHESS for the year 2014 on 06.11.2014
- Mr. Yashas D, Viani Antonio.D , Yashas.D \_represented India in Junior Chess.
- RVCE students won a national contest for the design of a cost effective and sustainable toilet in 2015.
- RVCE student team also won the overall championship in the all terrain vehicle design competition at Jamshedpur in 2014.
- RVCE has been ranked No.1 in Sports achievements under VTU in 2013-14
- RVCE is one among the few selected colleges for QEEE program delivery.
- Strong R&D & Industry Academic Collaboration, over 36 interdisciplinary courses and funding from government agencies and industries of ~Rs.57 Crores.

In the **Good Governance front** RVCE has been trying hard to bring transparency and systems and processes, in this regard following steps have been taken:

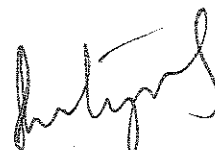


**PRINCIPAL**  
R.V. College of Engineering  
Bangalore-560 059

- Governing Body (GB) and other statutory bodies are formed as per the UGC Norms.
- Transparency in nominations to various bodies as required by UGC.
- Four student representatives are members of GB.
- Strategic Planning till 2020 has been prepared with the inputs from Senior Professors
- GB is the final authority to Approve, guide and handhold various activities of the institution and TEQIP.
- Decentralization of various activities through institutional committees.
- GB members are experienced in Higher education and are widely travelled to countries abroad.
- Progress of faculty and institution in general is reviewed by Governing Body, Academic Council , Finance Committee and internal evaluation committee.
- Latest minutes of the meeting and audited report are posted on the college Website.
- GB and AC members participate in various activities and programs of the institution from time to time including conferences and workshops.
- The management recognizes the achievements of faculty, staff and students on 26<sup>th</sup> January every year.

**The original IDP was focused on the following aspects:**

- ✓ Enhancement of Post Graduate & Research activities
  - a. Identifying areas as per national needs and starting of new interdisciplinary PG programs
  - b. Establishing Centers of Research Competence leading to capacity building, innovation, IP creation, technology development and entrepreneurship, in areas of national importance.
- ✓ Establishment of associated laboratories for PG programs
- ✓ Training the faculty and staff (After TNA is conducted)
- ✓ Starting Centre's of Excellence, leveraging the current expertise which would dovetail into advanced cutting edge new areas.
- ✓ Strengthening research and publications in identified areas.
- ✓ Strengthening Industry Institution interaction and activities
- ✓ Bringing Good Governance practices
- ✓ Improving quality of PG Education and Research
- ✓ Setting up of incubation Center



**PRINCIPAL**  
**R.V. College of Engineering**  
**Bangalore-560 059**

### **Achievements**

#### **PG Programs introduced as per IDP:**

- Bioinformatics and Drug Discovery : **M.Tech. in Bioinformatics**
- Large Area and Flexible Microelectronics : **M.Tech. in RF & Micro wave (THz)**
- Environmentally Clean, Sustainable and Efficient Energy Systems : **M.Tech. in Chemical Engineering and M.Tech. in Biotechnology**
- Industrial Engineering and Systems for Sustainability : **M.Tech. in Master of Engineering Management**
- Green Computing and Information Resource Management: **Planned for 2016-17**

Hopefully if we receive Autonomy for our PG programs we would be in a better position to reorient curriculum to suit our proposed PG programs and Research competence centers. Thus further enable the PG students to be better trained for placement and R&D activities.

#### **Training the faculty and staff (As per TNA conducted)**

Based on TNA requirements the faculty & staff were deputed to attend Workshops/Training/ Conferences in the subject domain areas as furnished in Table 1. Financial support under TEQIP was provided to the faculty for publication of technical papers in Journals & Conferences.

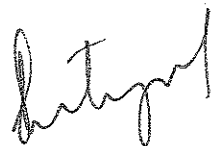
Table 1

<b>Subheads of Training</b>	<b>Number</b>	<b>Male</b>	<b>Female</b>	<b>Asst. Prof</b>	<b>Assoc. Prof.</b>	<b>Professors</b>
Workshops in Subject domain	127	71	56	47	28	52
Conferences in India (Paper presentation)	46	23	23	25	10	11
Conferences out of India	18	5	13	8	3	7
Journal Publications	15	10	5	10	2	3
Symposium	6	5	1	2	1	3
Workshops in Subject domain (Support Staff)	90	71	19	NA	NA	NA

#### **Establishing Centers of Research Competence:**

Leveraging the expertise available in the institution five centers were identified namely:

1. Multifunctional materials.
2. Clean & Hybrid power.
3. Large Area Flexible Electronic devices and systems.
4. Intelligent transport systems.
5. Green Infrastructure and Integrated Management.

  
**PRINCIPAL**  
**R.V. College of Engineering**  
**Bangalore-560 059**

Under TEQIP-II, sub component 1.2.1 CoE in Macroelectronics (Large area flexible electronic devices and systems) was granted.

#### Establishment of associated laboratories for PG programs

To Support the existing PG programs Labs and new PG programs started, following associated Laboratories were setup with financial help from RSST in collaboration with: Cisco, Texas Instruments, NXP Semiconductors, Samsung Electronics, Freescale Semiconductor, Bosch Rexroth, K-Pack, Hind High Vacuum, Tejas Networks, Key sight (Agilent Technologies) , TE Connectivity. Also eight laboratories were modernized.

#### Strengthening research and publications in identified areas:

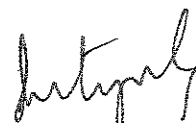
All possible efforts are put in to bring in financial support through externally funded projects which has paved way in secured projects. The details are provided below:

Activity	2011-12	2012-13	2013-14	2014-15
Externally funded Projects	Rs. 824.55 Lacs	Rs.186.80 Lacs	Rs.2017.75 Lacs	126.07 Lacs

Scaling up of Quality research and innovation	Total
Publications in refereed Journals (National)	21
Publications in refereed Journals (International) (Impact factor 1.01 to 8.0+)	788
Presentations & Publications in conferences (National)	129
Presentations & Publications in conferences (International)	288
Invited talks & Chairing sessions	71
Citations	1243
Patents filed	03

#### Strengthening Industry Institution interaction and activities:

1. 38 MoUs have been signed with industries as part of Industry Institute Interaction activities (Details are provided in the annexure)
2. 63 Industry Sponsored Scholarships. Eight Companies are providing full scholarship on the basis of means cum merit and means cum outstanding all round performance. These companies also appoint a mentor from their employees to groom the students selected as scholars.
3. Apart from corporate scholarship on the basis of means few Trusts/ NGOs/individuals are also providing scholarships.
4. Efforts are on to institute scholarship for girl students from companies like CISCO and GE.
5. Consultancy

  
PRINCIPAL  
R.V. College of Engineering  
Bangalore-560 059

Activity	2013-14	2014-15
Consultancy	Rs. 57.00 Lacs	17.25 Lacs

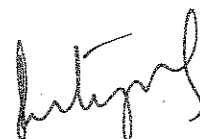
### **Bringing Good Governance practices**

1. GB and other statutory bodies are formed as per the UGC Norms.
2. Transparency in nominations to various bodies as required by UGC.
3. GB is final authority to Approve, guide and handhold various activities of the institution.
4. Decentralization of various activities through institutional committees.
5. GB members are experienced in Higher education and have widely travelled to other countries.
6. The strategic plan has been conceived from the inputs by Departments and the Management
7. Progress of faculty and institution in general is reviewed by Governing Body, Academic Council, Finance Committee and internal evaluation committee.
8. The institution follows the guide lines of the compliance agencies in recruitment, admission and salary structure.
9. GB and AC members participate in various activities and programs of the institution from time to time including conferences and workshops.
10. The management recognizes the achievements of faculty, staff and students on 26<sup>th</sup> January every year.
11. Bench marking through KEA, Employers ranking, Evaluation by university and Employers.

### **The Future Plans:**

R.V.College of Engineering is aiming high with the extension of TEQIP-II project period. A list of various activities with time lines has already been scheduled to achieve beyond the targets. The Major activities planned are:

1. Assistantship to M.Tech Students & PhD Scholars.
2. Supporting UG Student Research Projects
3. Support for Publications in Quality Journals & Conference as well as to sponsor faculty and students.
4. Support for Patenting & Commercialization of the Innovations.
5. Visit to International Universities for Joint & Collaborative Research.



PRINCIPAL  
R.V. College of Engineering  
Bangalore-560 059

6. Organizing Conferences/Workshops/Seminars/Symposiums/Trainings.
7. Seed Grant for Research Activities to both faculty and students.
8. Support for Qualification up-gradation – M.Tech. to Ph.D.
9. Deputing faculty to IITs/IIMs and other reputed institutes for Training.
10. Pedagogy training for 100% coverage of Faculty.
11. Basic Pedagogy training to PG students interested in going for Teaching Profession, this will enhance quality employability.
12. Industrial Training, Industrial Visit & Orientation Courses for faculty staff, staff and PG students.
13. Take up more Consultancy activities.
14. Management Development / Leadership Programs @ IIMs & Universities at abroad.
15. Sabbaticals for faculty
16. Revenue Generation through, Consultancy, Calibration & Testing
17. Support for Employability Enhancement Programs (PDP/EDC).
18. Support for Accreditation/Autonomy & other statutory meetings.
19. Bridge Courses /High Intensity Training/ Enhancing competence through Finishing School concept.
20. Setting up of incubation Center by the end of 2015.

### **Financial Aspects**

We here under are projecting chronologically the financial status right from the day the proposal was submitted to NPIU, to achieve the above mentioned plan of action under TEQIP-II.

- The original proposal was for Rs.1837.36 lacs
- Sanctioned Amount as per MoU Rs.1250 lacs
- Amount sanctioned for Pvt. Colleges: Rs.400lacs
- Contribution expected from Management: Rs.80 lacs
- Amount in Principle sanctioned: Rs.320 lacs
- Amount received till date: Rs. 200 lacs
- Expected funds: Rs.120 lacs (supposed to be till Dec,14)



**PRINCIPAL**

**R.V. College of Engineering  
Bangalore-560 059**

## R.V. College of Engineering, Bengaluru-IDP for additional TEQIP-II Grants

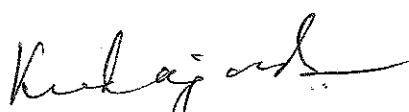
- Amount spent till date in Sub Component 1.2: Rs.315.94 lacs
- Period of Project Extended till Oct 2016

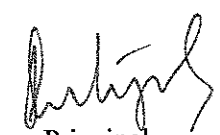
### Extract of Fund utilization and additional grants requested:

Activities	Head of Expenditure	Allocation for the Project Period	Re-appropriation of Funds Rs. Lacs	Total Expenditure including Commitment	Funds Required till end of project Oct 2016
Providing Teaching & Research Assistantship for Masters & Doctoral Programs in Engineering disciplines.	Assistantship 67+06	100.00	100.00	102.57	121.10
Enhancement of R&D and Institutional Consultancy activities	R&D	80.00	65.00	49.01	127.80
Faculty and Staff Development	FSD	60.00	60.00	66.77	104.50
Enhanced interaction with Industry	III Cells	22.00	20.00	13.79	45.10
Institutional Management Capacity Enhancement	Capacity development	18.00	23.00	16.97	29.00
Implementation of Institutional Academic reforms	Reforms	12.00	16.00	15.99	53.82
Academic Support for Weak Students	Student Support	8.00	7.20	2.11	39.60
Incremental operating Cost	IOC	20.00	39.00	30.85	19.25
Procurement of Books, e-Journals & Software	Procurement	80.00	69.80	17.88	10.00
Totals		400.00	400.00	315.94	550.17

### Conclusion

Inspite of multiple constrains and withdrawal of the total grants, the college has still tried to stick to its original IDP deliver output commensurate with the same. However in order to achieve the proposed goals by October 2016 and to sustain the TEQIP activities it is essential that additional grants of Rs.550.17 lakhs be sanctioned. It is also important that timely grants be released by the SPFU to keep up the momentum of various TEQIP activities. The Annexures enclosed give details of Activity chart and proposed Budget Estimates.

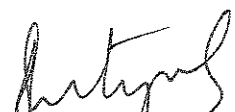
  
TEQIP Coordinator  
Prof. K N Raja Rao  
TEQIP Co-ordinator  
TEQIP - II

  
Principal  
PRINCIPAL  
R.V. College of Engineering  
Bangalore-560 059



**Timelines for achieving the Future Targets with respect to the planned activities:**

SL	Activity	Jan'15 to Jun'15	Jul'15 to Dec'15	Jan'16 to Jun'16	Jul'16 to Oct'16
1.	Assistantship to M.Tech Students +Full time PhD Scholars.	74+8	37+8	37+8	37+8
2.	Supporting UG Student Research Projects	10	15	15	10
3.	Support for Publications in Quality Journals & Conference as well as to sponsor faculty and students.	14	40	40	30
4.	Support for Patenting & Commercialization of the Innovations including mentoring	04	07	07	07
5.	Visit to International Universities for Joint & Collaborative Research.	01	03	02	01
6.	Organizing Conference	01	04	04	01
7.	Participation of faculty in conferences in India and Abroad	10	23	22	05
8.	Seed Grant for Research Activities to both faculty and students.	04	04	04	
9.	Support for Qualification up-gradation – M.Tech. to Ph.D.	15	30	30	25
10.	Deputing faculty to IITs/IIMs and other reputed institutes for Training.	05	15	15	15
11.	Pedagogy training for 100% coverage of Faculty.(Basic + advanced)	30+20	50+40	50+40	50+40
12.	Basic Pedagogy training to PG students interested in going for Teaching Profession, this will enhance quality employability in a batch of 15.	15 Students	30 Students	30 Students	30 Students
13.	In-house FSD programs and workshops	08	16	16	10
14.	Participation of Staff in Skill Development programs	04	10	08	03
15.	Industrial Training, Industrial Visit & Orientation Courses for faculty staff, staff and PG students.	20	30	30	30
16.	Management Development / Leadership Programs @ IIMs & Universities at abroad.	05	12	13	08
17.	Sabbaticals for faculty	02	06	06	02
18.	Revenue Generation through, Consultancy, Calibration & Testing	Planned by various Departments and Research Centers			
19.	Support for Employability Enhancement Programs (PDP/EDC). (No. of Students)	1250	1250	1250	1250
20.	Support for Accreditation/Autonomy & other Statutory meetings.	NBA-9 NAAC-1		NBA-03	
21.	Bridge Courses /High Intensity Training/ Enhancing competence through Finishing School concept.	12	26	26	14
22.	Setting up of incubation by the end of 2015.	01	05	05	05

  
**PRINCIPAL**  
**R.V. College of Engineering**  
**Bangalore-560 059**