

# NATIONAL BOARD OF ACCREDITATION

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File No. 25-99/2010-NBA

Date: 18-01-2018

To  
The Principal  
R.V. College of Engineering,  
8th Mile, Mysore Road,  
R.V. Vidyaniketan Post,  
Bangalore-560059,  
Karnataka

**Subject: Accreditation status of programs applied by R.V. College of Engineering, 8th Mile, Mysore Road, R.V. Vidyaniketan Post, Bangalore-560059, Karnataka.**

Sir,

This has reference to your application ID No. 2221 dated 08/02/2017 seeking accreditation by National Board of Accreditation in Tier-I format to PG Engineering programs offered by R.V. College of Engineering, 8th Mile, Mysore Road, R.V. Vidyaniketan Post, Bangalore-560059, Karnataka.

2. An Expert Team conducted on-site evaluation of the programs from 17<sup>th</sup> to 19<sup>th</sup> November, 2017. The report submitted by the Expert Team was considered by the concerned Committees constituted for the purpose in NBA. The competent authority in NBA has approved the following accreditation status to the programmes as given in the table below:

Sl. No.	Name of the Programs (PG)	Basis of Evaluation	Accreditation Status	Period of validity	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1.	Digital Communications	Tier-I January 2013 Document	Provisionally Accredited	Academic Years 2017-2018 to 2018-2019 i.e. upto 30-06-2019	Accreditation status granted is valid for the period indicated in Col.5 or till the program has the approval of the competent authority, whichever is earlier
2.	Highway Technology		Provisionally Accredited		
3.	Power Electronics		Provisionally Accredited		
4.	Computer Networking & Engineering		Provisionally Accredited		
5.	Masters in Computer Applications		Provisionally Accredited		

3. It may be noted that only students who graduate during the validity period of accreditation, will be deemed to have graduated with an NBA accredited degree.

4. The programs have been granted provisional accreditation. R.V. College of Engineering, 8th Mile, Mysore Road, R.V. Vidyaniketan Post, Bangalore-560059, Karnataka should submit the Compliance Report at least six months before the expiry of validity of provisional accreditation. It will require submission of pe-qualifiers before sending the Compliance Report for granting further accreditation.

- Principal / HOD / RSC  
- HOD's - EC / CV / SS / CS / MCA  
- ESGB  
27/1

*Admission*

Contd/...

**R.V. College of  
Engineering, 8th  
Mile, Mysore Road,  
R.V. Vidyaniketan  
Post, Bangalore,  
Karnataka**

**[17<sup>th</sup> to 19<sup>th</sup> November, 2017]**

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**TIER – I**



## GUIDELINES AND OPERATING PRACTICES FOR ACCREDITATION VISIT AND EVALUATION

### Chairperson's Report

Name of the programme	PG- MASTERS IN COMPUTER APPLICATIONS
Name and address of the institution	R.V. COLLEGE OF ENGG, 8 <sup>TH</sup> MILE, MYSORE ROAD R.V. VIDYANIKETAN POST, BANGALORE - 560059 KARNATAKA
Dates of the accreditation visit	17 <sup>TH</sup> - 19 <sup>TH</sup> NOVEMBER 2017.
Name, designation, and affiliation of programme evaluator 1	PROF. UMESH CHAND GUPTA, PROF'S HEAD DEPTT. OF MATHEMATICS & COMPUTER APPLICATIONS, IIT KHARAGPUR - 721 302 (WEST BENGAL)
Name, designation, and affiliation of programme evaluator 2	PROF. RAVINDER KR. SINGHA, PROFESSOR DEPTT. OF COMPUTER SC. AND APPLICATIONS, PUNJAB UNIVERSITY, SEC. 14, CHANDIGARH

(Requested to submit individual report for each programme)

#### Strengths:

Again PEDs & POs are defined & aligned to vision & mission statements. Success rate is good. Limited industry interaction. S.T.R. & F.T.R. & F.R.I. are very high. Reasonably good laboratory infrastructure. Classrooms are good. Use of technology in teaching/learning is visible.

#### Weaknesses:

Need PEDs/POs need to be redefined as the institute has got autonomy. Attainment 2 assessment of attainment can be done more systematically. Increase in Practical content is desirable. Placement is average. Low sponsored research & consultancy. Scarcity of publications in quality journals is low.

#### Deficiencies, if any:

No IPR. Internet bandwidth.

#### Additional remarks, if any:

(Team Chairperson)

## Overall Summary

### Infrastructure

- Infrastructure is good. Sufficient number of classrooms are there, general maintenance and cleanliness is there.
- The classrooms may be made ICT equipped keeping in mind the use of technology in teaching learning processes. Video conferencing and Telepresence facilities will augment the infrastructure further.
- Digital media facility should be utilised to its fullest for the content generation. Right now, its use appears less.
- A general discipline in students has been observed.
- The laboratories/workshop in the departments have scope to modernise.
- More number of technical staff may be recruited.
- The safety systems are in place.
- The office space given to the faculty is adequate.
- Non-teaching staff is sincere and courteous, and appeared active in listening to the issues of students and faculty.
- The institute has NCC, NSS and Sports are in place.
- A health center with two doctors and adequate facilities is also there.
- The library may be made RFID enabled. The resources in the library are adequate but can be improved further. The budget allotted to library can be further increased. More e-books can be procured. The plagiarism software is in place. The library must conduct regular awareness workshops on various topics for the benefit of students and faculty.
- The Entrepreneurship and incubation activities, need significant improvement. It would be appropriate to have an incubation center and an IPR cell in the college.
- More spaces for co-curricular activities may be created. The Innovative Clubs are doing good job but the activities can be further strengthen by involving PG students and greater faculty mentorship.
- Good to see that institute is making efforts to put ERP in place.
- The institute needs to work on design based thinking and can think of establishing a kind tinkering lab accessible to students and faculty 24 x 7.
- The hostel facility is adequate. Shared as well as single-seated rooms are available. The hostels and messes are neat and clean.
- The content on the website is up-to-date.
- The institute has sufficient computer hardware. Internet and Wi Fi facility can be improved further.
- The budget allocation appears to be OK but effective utilisation needs improvement.

### Governance

- The governing body is in place and meets regularly. They do discuss issues on all fronts. The strategic plan for the next five years has already been conceived.
- The academic council, research advisory committee, IQAC and other committees also meet regularly. The role of IQAC needs to be increased.
- The minutes of the meetings by different committees are recorded and there are evidences of actions taken.

- Decentralisation of power is in place.
- The constitution of the selection committees and the proceedings of the selection committee need improvement. The AICTE guidelines need to be followed in its true letter and spirit.
- The college has got autonomy in PG but the institute needs to take full advantage of it for its academic growth.

#### Academics

- The academic curricula is very rigid, as it is fixed by design, as per VTU guidelines, and the college follows that religiously.
- More emphasis on tutorial and practical content has to be given. The lecture hours can be reduced and tutorial and practical hours can be increased, so that there is more time for the students to have discussions with the faculty.
- Good to see that the college provides education beyond the syllabus through expert and guest lectures and involve industries and alumni in interacting with the students.
- The college must take regular help from the industry to revise the content of curricula. The presence of visiting and adjunct faculty from industry and top research organisations is very encouraging and needs to be expanded more. This indeed will deliver fruits in future.
- The evaluation/assessment is very much single exam oriented. Does not encourage learning. Needs to change so that more emphasis is placed on continuous evaluation.
- Quality of question papers must be improved.
- The internships and industrial visits are optional and are not embedded in the academic curricula.
- Feedback mechanism of students is OK. Corrective actions are taken by mentorship of the faculty by HoD.
- Feedback from other stakeholders like alumni, industry and parents are taken but design of questionnaire needs improvement. There is also not much evidence of corrective actions taken. This is very necessary when we talk of outcome based education.
- The institute is trying to put emphasis on communication skills and soft skills but needs further improvement.
- The role of humanities and management faculty therefore becomes very important.
- The scope for self-learning is to be improved.

#### Students

- Student enrolment is excellent.
- Student teacher relations are good.
- They are happy with the management and get support as when they demand.
- The learning part of the students needs improvement, as more emphasis is on classroom teaching. The project and design based learning needs to be further encouraged.
- Having a student body such as a student council will be useful in connecting with the management and resolving their issues diligently.
- Students are disciplined, and, in general, are happy but have some concerns, which I would like to flag to the administration:
  - They want more practical knowledge.
  - They want more industry visits.
  - The placement office is good but the placement is poor in some disciplines.



- The laboratories should be accessible 24 x 7.
- Library facility should be accessible to extended hours.

#### **Faculty**

- Student faculty ratio is good.
- Faculty retention is good.
- Faculty members appear equipped in understanding of vision and mission statements, PEOs, POs and COs and their mapping and correlation but continuous assessment needs improvement. The inclusion of Direct and indirect components need more attention.
- The research and development by the faculty is weak and needs significant improvement. The quality of research, knowledge of IPR and publications in quality journals is inadequate and need to be significantly improved.
- There is almost no industrial consultancy.
- Inter-disciplinary research groups are in the making but can be further strengthened.
- The faculty is qualified and the management is motivating others to improve their qualification. They are open to send their faculty outside to IITs/NITs for their upgradation.
- The connect of faculty with the industry and research organisations needs to be strengthened.
- Participation of faculty in short term courses and faculty development programmes is very less. The institute has to organise more train to teacher programmes, particularly on soft skills, pedagogy: both traditional and digital, and also on technical knowledge in this fast changing environment. Very essential, when AICTE has already announced 20% inclusion of MOOCs into the system. The industry is willing to help.

#### **Placements**

- Both hard and soft infrastructure is adequate but as I said earlier, the quantity and quality of PG placement needs improvement considering that the Bangalore is an IT city and the institute is surrounded by IT companies.
- The staff in the placement cell is adequate.
- The TPO has to make efforts to provide soft skill training on continuous basis throughout the year, needs to connect with the companies more often.

#### **Alumni, Industry Faculty and Parents**

- Alumni base is strong. They are proud to be part of this college and are also ready to help as mentors of the students.
- The relationship with alumni can be increased by creating a Dean Alumni Relation office on IIT patterns.
- The industry is also willing to increase their engagement with the college. There are a few industry sponsored labs. The Faculty needs to be pro-active to grab this opportunity. Which is also visible from almost no sponsored research and industrial consultancy in core engineering departments.
- The faculty members are happy and willing to learn and gain knowledge. The institute has to assist them in terms of their involvement in faculty development programmes, quality conferences and continuing education programmes. They seek more guidance and support from the management to enhance their R&D activities.

- Parents have given good feedback about the institute. Parents felt proud in admitting their students in this institute. Therefore, the programme outcomes are good but they did show some concerns, which are as follows,

- Laboratory upgradation
- Soft skills of teachers
- Updation of curricula



Evaluation Report

**Evaluation Report for NBA Accreditation of MCA Programme**

Name of the programme: MCA

Name and address of the institution: R.V. College of Engineering, Bangalore

Dates of the accreditation visit: November 17-19, 2017

Name, designation, and affiliation of programme evaluator 1: **Dr Ravinder Kumar Singla, Professor**

Panjab University, Chandigarh


Name, designation, and affiliation of programme evaluator 2: **Dr Umesh Chandra Gupta, Professor**

IIT, Kharagpur

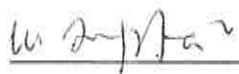
Name, designation, and affiliation of team chairperson: **Dr Manoj Kumar Arora, Director**

PEC University of Technology, Chandigarh

Signatures

  
19/11/17

(Programme Evaluator1)



(Programme Evaluator2)



(Team Chairperson)



**Criterion - 1: Vision, Mission and Programme Educational Objectives**

Item no.	Item description	Max. points	Points awarded	Remarks
1.1	Mission and Vision	5	5	
1.2	Programme Educational Objectives	10	7	
1.3	Attainment of Programme Educational Objectives	25	18	
1.4	Assessment of attainment of Programme Educational Objectives	30	22	
1.5	Indicate how results of assessment of achievement of PEOs have been used for redefining PEOs	5	3	
	<b>Total</b>	<b>75</b>	<b>55</b>	

**Findings:**

1. PEO's are yet to be re-defined as the College has received autonomous status in 2015-16. Earlier the college was affiliated to VTU.
2. Indirect Assessment tools need to be identified and deployed in a better way.

*in apta* *hugla* 19/11/17

**Criterion - 2: Programme Outcomes**

Item no.	Item description	Max. points	Points awarded	Remarks
2.1	Definition and Validation of Course Outcomes and Programme Outcomes	20	15	
2.2	Attainment of Programme Outcomes	30	21	
2.3	Assessment of attainment of Programme Outcomes	100	72	
2.4	Use of assessment results towards improvement of programme	25	14	
	<b>Total</b>	<b>175</b>	<b>122</b>	

**Findings:**

1. There is a need of further improvement in curriculum based on the results of evaluation of PO's
2. Assessment of attainment of POs is required to be done more systematically.
3. Use of assessment results towards improvement of programme is inadequate.

*in report*

*Angla*

**Criterion - 3: Programme Curriculum**

Item no.	Item description	Max. points	Points awarded	Remarks
3.1	Curriculum	20	16	
3.2	Curriculum components and relevance to programme outcomes	15	12	
3.3	Professional core courses and their relevance to Programme Outcomes	60	46	
3.4	Industry interaction/internship	10	07	
3.5	Curriculum Development	15	12	
3.6	Course Syllabi	5	4	
	<b>Total</b>	<b>125</b>	<b>97</b>	

**Findings:**

1. In 2013-14 and 2014-15, syllabus of VTU was being followed. From 2015-16, the college is following their own curriculum : being autonomous.
2. More elective courses need be offered.
3. Practical component need to be enhanced further in the new scheme.

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*in 2016/17*



**Criterion - 4: Students' Performance in the Programme**

Item no.	Item description	Max. points	Points awarded	Remarks
4.1	Success rate	30	25	
4.2	Academic performance	30	22	
4.3	Placement and higher studies	20	12	
4.4	Professional activities	20	14	
	<b>Total</b>	<b>100</b>	<b>73</b>	

**Findings:**

1. Placement of students is 60% on an average in last three years and needs improvement.
2. SI and API indices are reasonably good.

*Angla*

in 2012

## Criterion 5: Faculty Contributions

Item no.	Item description	Max. points	Points awarded	Remarks
5.1	Student-teacher ratio	20	15	
5.2	Faculty cadre ratio	20	20	
5.3	Faculty qualifications	30	30	
5.4	Faculty competencies correlation to Programme Specific Criteria	15	12	
5.5	Faculty as participants/resource persons in faculty development/training activities	15	05	
5.6	Faculty retention	15	11	
5.7	Faculty research publications	20	11	
5.8	Faculty intellectual property rights	10	00	
5.9	Faculty R&D and consultancy work	20	02	
5.10	Faculty interaction with outside world	10	04	
	<b>Total</b>	<b>175</b>	<b>110</b>	

### Findings:

1. STR, CRI and FQI are high.
2. Participation of faculty in FDP/workshop is minimal.
3. NO IPR by the faculty is filed.
4. R&D including consultancy needs more attention and improvement.
5. Faculty interaction with institute of eminence needs further enhancement.
6. Most of the research publications are in non-SCI Journals and further improvement is needed in terms of number of publications in Scopus/SCI listed Journals.

*an. 20/10/20*

*Rangla*

**Criterion 6: Facilities and Technical Support**

Item no.	Item description	Max. points	Points awarded	Remarks
6.1	Classrooms	20	18	
6.2	Faculty rooms	15	12	
6.3	Laboratories including computing facility	25	20	
6.4	Technical manpower support	15	10	
	<b>Total</b>	<b>75</b>	<b>60</b>	

**Findings:**

- Research Lab is required to be strengthened.**
- Reasonably equipped Computer Labs are available for use of MCA students.**

in depth

*[Signature]*



**Criterion 7: Academic Support Units and Teaching-Learning Process**

Item no.	Item description	Max. points	Points awarded	Remarks
7.1	Academic Support Units	50	42	
7.2	Teaching – Learning Process	50	38	
	<b>Total</b>	<b>100</b>	<b>80</b>	

**Findings:**

1. Good Teaching-Learning Process is in-place.
2. Audio-Visual Aids are available.
3. The college should start using MOODLE LMS for Teaching-Learning.
4. Offline/Online feedback system exists and results are analyzed. Teachers are also awarded for good teaching.

*W. Singh*

*Ringla*

## ACCREDITATION & EVALUATION

### Criterion 8: Governance, Institutional Support and Financial Resources

Item no.	Item description	Max. points	Points awarded	Remarks
8.1	Campus Infrastructure and Facility	10	08	
8.2	Organization, Governance, and Transparency	10	08	
8.3	Budget Allocation, Utilization, and Public Accounting	10	08	
8.4	Programme Specific Budget Allocation, Utilization	10	08	
8.5	Library	20	15	
8.6	Internet	5	03	
8.7	Safety Norms and Checks	5	03	
8.8	Counseling and Emergency Medical Care and First-aid	5	04	
	<b>Total</b>	<b>75</b>	<b>57</b>	

### Findings:

1. Governance, Institutional Support and Financial Resources are excellent.
2. Internet Bandwidth is 300Mbps. It should be increased as there are more than 6500 students on the campus.

*W. S. S. S.* *Rayla*

**Criterion 9: Continuous Improvement**

Item no.	Item description	Max. points	Points awarded	Remarks
9.1	Improvement in Success Index of Students	10	08	
9.2	Improvement in Academic Performance Index of Students	10	08	
9.3	Improvement in Student-Teacher Ratio	10	08	
9.4	Enhancement of Faculty Qualification Index	10	09	
9.5	Improvement in Faculty Research Publications, R&D Work and Consultancy Work	10	06	
9.6	Continuing Education	10	06	
9.7	New Facility Created	15	12	
9.8	Overall Improvement since last accreditation, if any, otherwise, since the commencement of the programme	25	16	
	<b>Total</b>	<b>100</b>	<b>73</b>	

**Findings:**

1. There is a slight improvement in STR, FRP and FRDC.
2. There is a need of significant improvement in the research publications in the reputed journals.
3. Further improvement in FDP activities is needed,

in reply - 



### Experts' Report on the Strengths, Weaknesses, and Deficiencies, if any

#### Strengths:

1. Meritorious and top-ranking students (having scored more than 60% at UG Level) opt for MCA programme
2. Every year 80% of the students pass MCA programme successfully.
3. Success, Academic Performance and Placement Indices are reasonably good.
4. Qualified faculty with 13 faculty members having Ph.D. qualifications and 8 having MCA/M.Tech. Six of the faculty members are already pursuing their Ph.D.
5. Cadre Ratio of Faculty is high ( 2 Professors and 6 Associate Professors)
6. STR is as per norms and FQI is good.
7. Class-room, Computer Labs and other infrastructure facilities are quite good. Requisite Licensed software for computing and software development is available.
8. One Computer Lab has been sponsored by the Industry.
9. The college is promoting the use of Open Source Software and Standards in their Labs.
10. Good Teaching-Learning Process is in-place and Audio-Visual Aids are available.
11. Offline/Online feedback system exists and results are analyzed. Teachers are also awarded for good teaching.

#### Weaknesses:

1. Faculty research publications and faculty interaction with outside world is inadequate.
2. Deployments of indirect assessment tools in attainment process needs more attention and follow up.
3. Active involvement of stakeholders is required in all academic processes (OBE).
4. Feedback exists; some analysis is done; however follow up action is required.
5. There is a need of further improvement in curriculum based on the results of evaluation of PO's
6. Assessment of attainment of POs is required to be done more systematically.
7. Use of assessment results towards improvement of programme is inadequate.
8. Placement of students is 60% on an average in last three years and needs improvement.
9. Participation of faculty in FDP/workshop is minimal.
10. NO IPR by the faculty is filed.
11. R&D including consultancy needs more attention and improvement.
12. Faculty interaction with institute of eminence needs further enhancement.

#### Deficiencies, if any:

1. Most of the research publications are in non-SCI Journals and further improvement is needed in terms of number of publications in Scopus/SCI listed Journals.
2. Internet Bandwidth is 300Mbps. It should be increased as there are more than 6500 students on the campus.
3. In BoS, experts from IISc/IIT/NIT/other Universities are not there and may be included.

#### Additional remarks:

1. More facility is needed in Research Labs.
2. 18 students have been enrolled in Ph.D. on full-time basis (11 external).
3. PEO's are yet to be re-defined as the College has received autonomous status in 2015-16. Earlier the college was affiliated to VTU.
4. Indirect Assessment tools need to be identified and deployed in a better way.
5. More elective courses need to be offered

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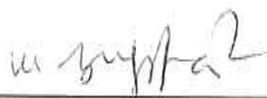
Summary of Evaluation

No.	Criterion	Max. points	Qualifying points	Points awarded	Qualified ?
1	Vision, Mission and Programme Educational Objectives	75	45	55	Yes
2	Programme Outcomes	175	105	122	Yes
3	Programme Curriculum	125	75	97	Yes
4	Students' performance	100	60	73	Yes
5	Faculty contributions	175	105	110	Yes
6	Facilities and technical support	75	45	60	Yes
7	Academic Support Units and Teaching- Learning Process	100	60	80	Yes
8	Governance, Institutional Support and Financial Resources	75	45	57	Yes
9	Continuous Improvement	100	60	73	Yes
	<b>Total</b>	<b>1000</b>	<b>600</b>	<b>727</b>	

Specific remarks for those criteria in which points awarded are less than the qualifying points: NIL

  
19/11/17

(Programme Evaluator1)  
Ravinder Kumar Singla,  
Panjab University, Chandigarh



(Programme Evaluator2)  
Dr Umesh Chandra Gupta  
IIT, Kharagpur Director,

(Team Chairperson)  
Dr Manoj Kumar Arora

