

Academic Audit Report: TEQIP Phase II under !.2	
Name of Performance Auditor	Professor Nori Prakasa Rao
Dates of Performance Audit	April 5 and April 6, 2013 at UVCE, Bengaluru and August 29 at Hyderabad
Name of Institution with location	University Visvesvaraya College of Engineering, Bengaluru, 560001

The information furnished is based on the Academic Auditor's visit to UVCE, Bengaluru to record the performance of UVCE, Bengaluru in achieving the objectives set for TEQIP II (1.2) with financial support and guidance provided.

The task of the Auditor included discussions with various stakeholders, visiting all the places contributing to value addition in raising the quality of Engineering Education offered at UVCE. Emphasis of the visit was on:

1. Recording the growth in the promotion of post-graduate education, research and industry interaction at UVCE.
2. Reporting on UVCE's efforts on Equity Action Plan and finally
3. Reporting on the improvement in the Employability of Post-Graduate students by
 - Offering programmes that are more user oriented and
 - Designing PG and Ph.D Projects which enable students to have considerable interaction with industry for raising Industry's productivity through the offer of solutions based on research and innovation.

The supporting evidence is from visit to the entire College, presentations of Faculty, discussion with all stake holders, Principal's presentation and Information given in Table 7

Table A: Summary Performance Audit Evaluation Number-1

Name of Performance Auditor	Professor Nori Prakasa Rao
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S. No.	Area of Performance Audit	Remarks
1.	Project Implementation (delayed start due to delayed funding))	Good
2.	Implementation of Institutional Reforms	Very Good
3.	Administrative and Managerial Efficiency Improvement	Good
4.	Qualitative Improvements related to Education and Research	Excellent
5.	Institutional Governance	Good
6.	Support to Weak UG Students	Good

Note:

For Table A, the Summary of Performance Audit Evaluation, is to be filled in by the Performance Auditor from the overall qualitative assessment for the Tables 1 to 6 as given ahead in this format for Performance Audit Report.

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Performance Auditors Report
Table-1: Project Implementation

Name of Performance Auditor	Professor Nori Prakasa Rao
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Sl. No.	Aspect	Assessment Grade (1-3)	Supporting Evidence*
1.	Progress in securing Autonomous Institution status from the affiliating University & the UGC within 2 years of joining the Project OR Effectiveness of utilization of academic autonomy possessed/ obtained	2	Recipient of TEQIP I support Autonomous and responsible user of Autonomy
2.	Sufficiency and quality of academic buildings	2	College is located in the heart of the City There is difficulty for major expansion plans.
3.	Progress/achievement in <u>starting new PG programs</u> as evidenced by: <ul style="list-style-type: none"> • Securing AICTE approval • Establishment of laboratories • Adequacy of student enrolments • Cumulative number of assistantships granted 	1	Delayed receipt of funding College has all the capability and expertise.

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Sl. No.	Aspect	Assessment Grade (1-3)	Supporting Evidence*
4.	Progress/achievement in <u>strengthening existing PG programs</u> as evidenced by: <ul style="list-style-type: none"> • Establishment of proposed laboratories • Adequacy of student enrolments • Cumulative number of assistantships granted 	1	Promising by the time second Audit takes place on all the three heads
5.	Progress/achievement in <u>strengthening existing UG programs in Govt funded and aided institutions only</u> as evidenced by: <ul style="list-style-type: none"> • Establishment of proposed laboratories • Adequacy of student enrolments 	2	Very effective utilization of grants provided in TEQIP I. Laboratories well equipped and UG experiments are stimulating.
6.	Improvements in Faculty Development as evidenced by: <ul style="list-style-type: none"> • Percentage/ increase in percentage of faculty benefiting from the Core Module of pedagogical training • Percentage of / increase in percentage of faculty benefiting from the Advanced Module of pedagogical training • Percentage of faculty with UG qualification registered/deputed for improving their qualification • Percentage of faculty deputed for subject domain training, seminars, etc. (<i>faculty benefiting from subject domain training are required to share their gains with peers and also put their report on training on institution's web site</i>) 	1	As far as TEQIP II (1.2) is concerned this is yet to start. The College has drawn up a good programme. Faculty Development is planned for 100 percent faculty. Over 90 percent faculty have PG qualification. The faculty Development is planned through Domain Knowledge development programmes, Pedagogy training programmes, Testing and evaluation procedures to RRIVE t effectiveness of teaching, Vists to International Institutes of repute and organizing attending seminars in current topics.

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Sl. No.	Aspect	Assessment Grade (1-3)	Supporting Evidence*			
7.	Generation, retention and utilization of the non-tuition fee revenue generated through various activities	1	Since the College is under University Control the statutes prevent the College to have 100 percent control on earnings			
8.	Engineering faculty positions in terms of: <ul style="list-style-type: none"> • Reduction in vacancies • Increase in faculty appointed on regular basis • Increase in the number of faculty with at least a Masters degree 	1	Large number of positions at the Professor level are vacant (29 out of 72 vacant positions). This will create difficulties in starting new PG programmes. Total sanctioned faculty strength is 162 excluding Architecture.			
9.	Improvements in placement rate of UG pass outs	2	#	Academic Year	UG (%)	PG (%)
			1	2010-2011	86.99	38.46
			2	2011-2012	81.95	33.67
			3	2012-2013	89.86	34.50
10.	Enhanced interaction with industry as evidenced by: <ul style="list-style-type: none"> • Increase in industry personnel registered for Masters & Doctoral programs • Increase in industry personnel trained by the institution in knowledge and/or skill areas • Increase in the number of consultancy assignments secured by the institution • Increase in the number of students' and faculty visits to and/or training in industry • Increase in involvement of industry experts in curricula & syllabi improvements, laboratory improvements, evaluation of students and delivering expert lectures • Increase in the number of sandwich programs between industries and the institution 	2	<p>Consultancy Projects worth about Rs 3 crores are being handled. It can increase significantly provided the faculty vacancies are filled up. UVCE having competent resources and located right in Bengaluru. Consultancy projects and the Revenue resulting can go up. This will be specifically pointed out to the Mentor.</p> <p>The other headings except the one in bold are being planned.</p>			

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Table 2. Performance Audit - Implementation of Institutional Reforms

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Sl. No.	Aspect	Assessment Grade (1-3)	Supporting Evidence
1.	<p>Effectiveness of faculty evaluation by students as evidenced by:</p> <ul style="list-style-type: none"> Percentage/ increase in percentage of faculty evaluated by students in one or more subjects Are results of evaluation properly used for teacher improvement? <p>If yes, is the procedure adopted for teacher improvement including counseling appropriate and effective?</p>	2	<p>100 percent faculty is assessed by the students at scheduled times in the Calendar.</p> <p>Teacher/Teaching improvement is only through self -motivation based on the suggestions and opinions expressed by the students in the process of evaluation</p>
2.	Establishment of four funds and their sizes	1	Funds are established but no money has been put in them. This may be because of the University control of internal revenue generated.
3.	Offer of incentives to faculty for participation in consultancy, R&D and continuing education programs offered by the institution	2	As per Bangalore University norms – 1/3 of revenue generated is Deposited to University accounts and 2/3 revenue generated is spent for consumables and remuneration to faculty and staff involved in consultancy projects

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Table-3 Performance Audit - Improvement in Administrative and Managerial Efficiencies

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S. No.	Aspect	Assessment Grade (1-3)	Supporting Evidence
1.	Modernization and decentralization of administration and financial management	1	Academic Autonomy is full. Rest are partial and are as per the rules of the Institute
2.	Responsiveness to students academic and non-academic requirements	2	Generally Good
3.	Responsiveness to faculty requirements	2	Generally Good
4.	Utilization of institutional resource s	2	The merger resources made available are fully used
5.	Maintenance of academic and non-academic infrastructure and facilities	1	Can be better
6.	Extent of delegation of administrative and financial decision making powers to senior functionaries	1	Should be much more.

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Table 4. Performance Audit - Quality of Education and Research

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S. No.	Aspect	Assessment Grade (1-3)	Supporting Evidence
1.	Improvements in curricula and /or syllabi	2	Done at regular intervals
2.	Relevance of curricula and syllabi	2	Quite appropriate
3.	Improvement in teaching-learning processes as evidenced by: <ul style="list-style-type: none"> • Use of teaching aids • Continuous evaluation through quiz, assignments or mid-semester examinations etc. Sharing of answer scripts with students and explanation of the evaluation carried out • Introduction of flexibility in program offerings • Increased availability of adequate electives 	2	Receipient of TEQIP Phase 1 Support. Has performed well and is continuing to do well In all the areas shown in the left.

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4.	Progress in securing accreditation of eligible UG & PG programs (<i>institutions are to achieve target of 60% of eligible UG & PG programs accredited and/or applied for within 2 years of joining the Project</i>)	3	All the programmes are accredited
5.	Increased collaboration with industry in R&D as evidenced by: <ul style="list-style-type: none"> • Increase in number of joint and industry sponsored R&D work undertaken • Increase in financial contribution by industry for R&D 	2	Can be better than the present Rs 3 Cr total value
6.	Increase in percentage of revenue from externally funded R&D projects and consultancies in the total revenue of the institution from all sources	2	To be seen as the time progresses. The base set to day is at Rs 3 cr.
7.	Increase in the number of publications in refereed journals	2	119
8.	Increase in the number of patents filed	2	One in process

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Table 5. Performance Audit - Performance in the Governance of Institutions

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The objective of an Institutional Governance Review is to assist institutions, using an evidence-based approach, in their self assessment of current Governance Practice. A thorough review will indicate the level of effectiveness of institutional governance and the Governing Body, and identify action points for improvement. It will also indicate that:

- The conduct of the Governing Body is in accordance with the standards of behavior that the public should rightfully expect.
- The Governing Body and the individual Governors are exercising their responsibilities in the interest of the institution as a whole.
- The Review has been undertaken by a Group who have internal and external credibility to undertake such exercise.

	INSTITUTIONAL GOVERNANCE REVIEW TEMPLATE	Assessment Grade (1-3)	Supporting Evidence
1.	A. PRIMARY ACCOUNTABILITIES		
	<ul style="list-style-type: none"> • Has the Governing Body approved the institutional strategic vision, mission and plan – identifying a clear development path for the institution through its long-term business plans and annual budgets? 	2	Yes. Approved
	<ul style="list-style-type: none"> • Has the Governing Body ensured the establishment and monitoring of proper, effective and efficient systems of control and accountability to ensure financial sustainability 	2	The Governing Body Constituted as per TEQIP Requirements will do it. It is still to be observed as the project had the delayed start.

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	<ul style="list-style-type: none"> Is the Governing Body monitoring institutional performance and quality assurance arrangements? 	2	To be judged from the next audit
	<ul style="list-style-type: none"> Has the Governing Body put in place suitable arrangements for monitoring the head of the institution's performance? 	2	Yes, discussed in its meetings.
2.	B. OPENNESS & TRANSPARANCY IN THE OPERATION OF GOVERNING BODIES	2	Fully open to the members of the Governing Body. Discussions are not made public but decisions are conveyed through proper office orders.
	<ul style="list-style-type: none"> Does the Governing Body publish an annual report on institutional performance? 	2	Instruction has been given to place it in TEQIP website of the Institute.
	<ul style="list-style-type: none"> Does the Governing Body maintain, and publicly disclose, a register of interests of members of its governing body? 	1	Still to be seen.
	<ul style="list-style-type: none"> Is the Governing Body conducted in an open a manner, and does it provide as much information as possible to students, faculty, the general public and potential employers on all aspects of institutional activity related to academic performance, finance and management? 	1	Fully open to the members of the Governing Body. Discussions are not made public but decisions are conveyed through proper office orders. Institut website also should be used for this purpose. To be monitored
3.	C. KEY ATTRIBUTES OF GOVERNING BODIES		

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	<ul style="list-style-type: none"> Are the size, skills, competences and experiences of the Governing Body, such that it is able to carry out its primary accountabilities effectively and efficiently, and ensure the confidence of its stakeholders and constituents? 	2	The Governing Body constituted as per NPIU guidelines to monitor TEQIP activities is competent. The functioning will be seen after the next audit
	<ul style="list-style-type: none"> Are the recruitment processes and procedures for governing body members rigorous and transparent? <p>Does the Governing Body have actively involved independent members and is the institution free from direct political interference to ensure academic freedom and focus on long term educational objectives?</p>	?	Procedures are Pucca and as per the UGC norms. No Knowledge of the second part. Unable to answer with confidence in view of ignorance.
	<ul style="list-style-type: none"> Are the role and responsibilities of the Chair of the institution and the Member Secretary serving the Governing Body clearly stated? 	2	Yes and as per statutes
	<ul style="list-style-type: none"> Does the Governing Body meet regularly? Is there clear evidence that members of the governing body attend regularly and participate actively? 	2	Yes as per the discussion with some teachers.
4.	D. EFFECTIVENESS AND PERFORMANCE REVIEW OF GOVERNING BODIES		

The supporting evidence is from visit to the entire College, presentations of Faculty, discussion with all stake holders, Principal's presentation and Information given in Table 7

	<ul style="list-style-type: none"> Does the Governing Body keep their effectiveness under regular review and in reviewing its performance, reflect on the performance of the institution as a whole in meeting its long-term strategic objectives and its short-term indicators of performance /success? 	?	Could not collect such detailed information. The next audit will attempt to provide this.
	<ul style="list-style-type: none"> Does the Governing Body ensure that new members are properly inducted, and existing members receive opportunities for further development as deemed necessary? 	2	A printed booklet should be made available describing the role of Governing Body and the powers they have to elevate the objectives of TEQIP 1.2 re PG Education and Research
5.	E. REGULATORY COMPLIANCE		
	<ul style="list-style-type: none"> Does the Governing ensure regulatory compliance* and, subject to this, take all final decisions on matters of fundamental concern of the institution. 	2	yes
	<ul style="list-style-type: none"> Does the regulatory compliance include demonstrating compliance with the 'not-for-profit' purpose of education institutions? 	3	Most certainly Yes
	<ul style="list-style-type: none"> Has there been accreditation and/or external quality assurance by a national or professional body? If so, give details: name, status of current accreditation etc 	2	Regarding accreditation yes. Monitoring of performance quality by the AICTE needs considerable improvement. The College itself strives for this to improve employability of students which will consequently enable good input students.

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Table 6. Performance Audit - Support to Weak Students

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S. No.	Aspect	Assessment Grade (1-3)	Supporting Evidence
1.	Percentage of students that complete the full first year and transit successfully to Second Year	3	93 percent as per the written information provided by the TEQIP coordinator
2.	Effectiveness of techniques used for identifying weak students	1	Answer provided is inadequate and Mentor will advise them about the right procedure for this.
3.	Conduct of remedial teaching throughout academic session	1	There are hand holding methods which the Mentor should advise them on
4.	Conduct of specialized soft skills and professional skills training	1	In place -but details will be collected in the next audit particularly on the improvement made.
5.	Increase in the number of campus interviews	2	The figure can be ascertained only in the subsequent audits.

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6.	Establishment and functioning of a Finishing School	2	The School exists and its role in improving the employability of students will be evident in subsequent audits
7.	Increase in the number of internal and external students that attend high intensity training conducted by the Finishing School	2	Students and faculty have been briefed and it is hoped that best use of the facility created will be made over time.

Improvements noticed on shortcomings reported during earlier Performance Audits:

This is the first audit and has worked on setting the base levels in all the activities of importance contributing to the objectives of TEQIP Phase II (1.2)

Brief statements on continuing shortcomings and reasons thereof:

There is a good shortage of faculty particularly at the senior level. This affects activities like research, consultancy, projects, offer of multiple electives besides new PG courses itself. The Governing Body should request the State government to fill up the vacancies.

Recommendations for Mentors:

(i) Please ensure the start of the new PG programmes mentioned in IDP. (ii) Complete display of TEQIP information including the decisions taken by Governing Body in the WEB site of UVCE and (iii) Equity action Plan to go beyond just conducting extra classes. May be 1 to 1 mentoring with many good students will be more productive. (iv) Institute needs considerable inputs regarding the role of finishing School and Industry personnel participation in helping the students to make themselves more employable. Students in weak in communication have to be trained through rigorous interactive sessions.

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Impression of the TEQIP Academic Auditor about the University Visvesvaraya College of Engineering, Bengaluru gathered during his First visit to the College in April 2013.

The College established in 1917 and currently affiliated to Bengaluru University is the recipient of financial support under TEQIP I as well as TEQIP II. The College has been performing excellently on all the fronts identified with the vision and mission of TEQIP. It has got strong Undergraduate Post-graduate and Ph.D. programmes and has its involvement in Sponsored Research and Industrial Consultancy.

The College functions under the able guidance of its teaching and Research-wise highly competent Principal and well qualified and motivated faculty in numbers satisfying the UGC norms. With its objective of promoting Postgraduate programmes, Research and Industry Interaction through Consultancy TEQIP has made a right choice in identifying a competent Institution to support financially and encourage generating quality outputs.

The First auditing has been restricted to identifying the Strengths, weaknesses, opportunities and threats posing the College in meeting the TEQIP expectations. During discussions with various stakeholder groups it has been specified that with these as the bench marks the progress on the timeline will be reported to NPIU based the Commitments made by the College in its PIP. Special watch will be kept on whether the College is progressing on the front of setting up new Postgraduate programmes and increasing the student input to the PG Courses that are already running as well as those started during TEQIP Phase II.

A major observation made is that this old College (nearly a century old) has many laboratories still needing modernization. More grants from the Government would have elevated and placed this College on par with some of the best National Institutes of Technology which have been started much later. The enthusiasm of the Government to start new Colleges including the IITS should also have been matched with the provision of adequate funds to these excellent performing old Engineering Institutes located in parts of the Country. This would have raised the quality standards of Engineering Education offered in the Country and the graduates produced would have all the ability to meet the Global standards.

As such the College has been producing meritorious graduates as evidenced by its distinguished alumni who are holding highly responsible positions in the Country.

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