



TIFAC CORE In Telematics

(Technology Information, Forecasting and Assessment Council)
Sponsored by Department of Science and Technology, New Delhi

2ND REACH MONITORING COMMITTEE MEETING February 7, 2010



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MINUTES OF THE FIRST MEETING OF THE REACH MONITORING COMMITTEE (RMC) FOR TIFAC-CORE, V R SIDDHARTHA ENGINEERING COLLEGE (VRSEC), VIJAYAWADA

Date: February 8, 2009

Venue: O/o, Principal, VRSEC

Attendees:

RMC

Prof. S. Rajagopalan	Professor, International Institute of Information Technology, Bangalore (Chairman)
Prof. S. Chakraborty	Chairman, GS Sanyal School of Telecommunication, IIT-Kharagpur (Member)
Dr. Anand Srivastava*	Director, Center for Development of Telematics (C-DOT), New Delhi (Member)
Dr. K. Mohana Rao	Principal, VRSEC, Vijayawada (Member- Ex officio)
Dr. Neeraj Saxena	PSO & Coordinator, Mission REACH, TIFAC, New Delhi (Member-Secretary)
Dr. K. Sri Rama Krishna	Coordinator, TIFAC-CORE, VRSEC, Vijayawada (Convenor)

* could not attend the meeting owing to prior commitments

Invitees

Sh. P.L.N. Prasad	Secretary, Siddhartha Academy of General & Technical Education (SAGTE), Vijayawada
Sh. N. Venkateshwaralu	Vice President, SAGTE, Vijayawada
Sh. P. Laxmana Rao	Treasurer, (SAGTE) & Convenor, VRSEC, Vijayawada
Sh. A. Parida	Director, TIFAC, New Delhi
Sh. Satyagopal Panigrahi	National Instruments Systems India Pvt. Ltd., Bangalore
Sh. A. Bharath Kumar	Agilent Technologies, Bangalore
Sh. Mahesh R. Bhatkal	Applied Digital Microsystems (ADM) Pvt. Ltd.
Sh. U. Nagaraju	Optima Technologies & Consultants, Secundrabad
Sh. D.Rama Krishna	Efftronics Pvt. Ltd., Vijayawada
Prof. Y. Sushma	HOD, Information Technology Department, VRSEC
Dr. A.V. Ratna Prasad	HOD, Mechanical Engineering Department, VRSEC
Dr. A. Jhansi Rani	ECE Department, VRSEC
Sh. Vijayamaruthi Babu	Training & Placement Officer, VRSEC
Sh. P. Phani Kumar	Assistant Coordinator, TIFAC-CORE. VRSEC

1. Chairman Prof. Rajagopalan welcomed the members of the RMC, invitees and the other attendees to the first meeting of the RMC. He expressed his happiness on establishment of a TIFAC-CORE in 'Telematics', with an impressive participation from the industry. He remarked that Telematics is an emerging multi-disciplinary area in which even the developed countries are yet to make a mark. The TIFAC-CORE has an excellent opportunity to provide an early lead through its focus on quality education, training, research and innovation in Telematics.

Prof. Rajagopalan added that TIFAC-CORE can carve a niche for itself by offering something unique in the area of Telematics. He set out 3 targets for the CORE to be realized in next 3 years. These are (i) 6 papers in internationally acclaimed journals like IEEE (ii) 2-3 revenue earning international patents & (iii) at least one student becoming an entrepreneur and employing up 50 people. He expressed his confidence that if the CORE progresses with eye on these three targets, support and resources will flow from all quarters.

2. As this was the first meeting of RMC for the TIFAC-CORE at VRSEC, Dr. Saxena elaborated the genesis, philosophy, the objectives and the uniqueness of the Mission and also explained the concept of CORE (Centre of Relevance and Excellence) and its salient features. He thanked the VRSEC Management and all industry partners who had expressed their support to the TIFAC-CORE by coming for the meeting. He clarified that CORE would be different from other conventional departments of College in a sense that it would be driven by the interest of Telematics industry. He requested the management for conferring adequate autonomy to the CORE team in the course of implementation of the project because of time-bound nature of project which is sensitive to pooling of resources and deliverables.
3. Mr. Parida expressed hope that with the order of industry participation at the inception stage, CORE should be able to realize targets set out by the Chairman. Participation of industry and frequent interactions between industry and CORE will ensure that 'relevance' remains in focus while 'excellence' is targeted. Prof. Chakraborty remarked that yard-stick for assessing the performance of CORE has already been set by the Chairman and felt that three patents should certainly be realizable. He pointed out that Telematics is an area which will be driven by industry and exhorted CORE to rise to the expectations of industry partners so that their enthusiasm sustains. On being pointed out by the Chairman that the standards in Telematics existed nominally, Prof. Chakraborty remarked that work at TIFAC-CORE should be of such a quality that it can influence the standards that may be drawn for Telematics in the country.

Sh. Mahesh Bhatkal introduced his company which has been working in the space of Embedded Technologies for about 20 years. He mentioned that there is an acute shortage of manpower with skills in Telematics among the user industry and hailed the idea of TIFAC-CORE which can source this manpower. Mr. Satyagopal reiterated the lack of quality manpower and expressed his confidence that CORE would be able to produce the kind of manpower industry is looking forward to. Hailing the target of

creating one entrepreneur desired by Chairman, Mr. Satyagopal mentioned that National Instruments would be happy to support a student who opts for setting-up an enterprise.

Sh. P.L.N. Prasad expressed apologies on the delay in initiation of the project due to administrative reasons and expressed full support of the College Management to make up for the time lost. His colleagues Sh. N. Venkateshwaralu and Sh. P. Laxmana Rao thanked TIFAC and industry for their support in establishing the CORE in their College and conveyed the commitment and fulsome support of the College and Management to ensure timely completion of project.

4. Chairman invited Dr. K. Sri Rama Krishna, Coordinator, TIFAC-CORE to make a presentation on the Baseline Document (BLD) and also the plan of activities in next 6-12 months. A presentation was made on the vision of the CORE, its objectives, the academic and R&D activities planned, participation of industries & some other activities proposed in the CORE. He mentioned that he would start with establishment of first laboratory with the help of M/s. National Instruments Systems India Pvt. Ltd. (NI) and conducting training programs for faculty in Telematics-design and prototyping of Telematics products. This would be followed by establishment of Embedded Systems Lab with the help of Applied Digital Microsystems Pvt. Ltd. (ADM) and Agilent Technologies. Academic and research programs would be initiated based as soon as these labs are set-up. A national & international conference would be organized after the second year.

Dr. Rama Krishna mentioned that initially NI had planned to set-up Telematics Test Systems for Wireless Standards and Telematic products, the cost of which was Rs. 100 lakh. However, after realizing the seriousness of other stake-holders and also the needs of user industries NI has decided to enhance its contribution in setting up a full-fledged state-of-the-art Telematics Lab. Sh. Satyagopal stated that NI will now provide embedded tools for designing and developing an entire Telematic product *e.g.* Fleet management, vehicle tracking *etc.* This will ensure exposure to real-world problems and experience in various phases of life-cycle (design+ prototype+ deployment) of a product. NI would be providing PXI Workbench, cRIO Workbench and Software Workbench at a price of Rs. 128.51 lakh instead of Rs. 727.36 lakh (price for academic institutions, price for the industry being Rs. 797.10 lakh). Thus, by offering about 82% discount, NI would be absorbing Rs. 598.85 lakh which would be its contribution to TIFAC-CORE as against Rs. 100 lakh agreed earlier. To begin with 30 faculty will be trained in 3 phases who will in turn be training other faculty, students and user industry/ organization later. NI will jointly with TIFAC-CORE develop customized learning/ training material to cater to the Telematics industry. Dr. Rama Krishna clarified that with this TIFAC-CORE would have a world-class Telematics Lab and this will not entail any additional commitment from TIFAC or other partners.

It was informed that the total approved cost of the TIFAC-CORE project to be implemented over a period of 3 years, sanctioned by TIFAC and revised after enhanced contribution from NI is as follows:

Expenditures Rs. (in lakh)	TIFAC	Industry	College	Total
Recurring	-	-	75.00	75.00
Non-recurring	390.00	468.00	-	858.00
Total*	390.00	468.00	75.00	933.00
Additional contribution to Non-recurring		498.85 (from NI)		
Total revised	390.00	966.85	75.00	1431.85

**Project cost, as sanctioned by TIFAC*

The members of RMC welcomed the enhanced contribution of NI. They were requested to give their suggestions on the BLD so that it could be finalized and frozen. The finalized BLD must be made available to TIFAC as a condition to the release of first installment of funds from TIFAC. Dr. Saxena mentioned that any deviations from the BLD, including mid-course corrections suggested by the RMC shall be reflected in the minutes which together with BLD will be treated as reference for monitoring the activities and assessing the performance of the TIFAC-CORE.

RMC members made following points in respect of the BLD

- Some of the milestones should be realized in parallel
- Diploma program should be of minimum one-year duration.
- Programs of shorter duration may be called Certificate Course/Program
- Guidelines prescribed under Section 22 of UGC may be followed for the nomenclature of programs
- Diploma programs should be introduced after Certificate and Degree programs
- R&D culture requires time to build-up and needs to be sustained. Therefore, plans to sustain R&D beyond 5 years must also be included
- 3 targets prescribed (by Chairman) may also be incorporated

Academic/ Training activities

5. Dr. Sri Rama Krishna informed that in the next six months, programs to train the faculty in the area of Telematics would be conducted in three phases. Hands-on-training will be an important component of this training. This will expose the faculty to the latest in Telematics and impart experience on the facilities created under TIFAC-CORE. Telematics being a new field, this approach will strengthen the base for academic & training programs (for students, faculty and industry) and also research activities outlined.

Research & Development activities

6. Prof. Rajagopalan suggested that in the first six months TIFAC-CORE should look into the list of 48 services under Telematics identified by USA Guidelines and European nations. A brainstorming session should be organized involving industry partners, user (automotive) industry, faculty and students to study them and narrow down to 10 areas which TIFAC-CORE can focus upon. Telematics experts from ARAI- Pune, CRTI- Pune & CRRI- Delhi and faculty working in Telematics in other TIFAC-COREs can also be invited for this. Leading experts like Dr. Arvind Bharadwaj (Ashok Leyland) and Dr. Roland Haas (Former CEO, Chrysler R&D) may also be invited. Prof. Chakraborty suggested that option of not one but a series of few such sessions with lesser number of participants can also be considered. It was decided that first such session can be organized back-to-back with the next RMC meeting.
7. Prof. Chakraborty mentioned that since CORE *inter alia* would focus on innovation, VRSEC must have a very clear IPR Policy which will be applicable to TIFAC-CORE also. This is necessary for the protection and commercialization of the Intellectual Property generated at TIFAC-CORE. Prof. Rajagopalan suggested that the policy of IIT-Kanpur, IIT-Bombay and IIIT- Bangalore can be studied to come out with one for the College. He urged Dr. Mohana Rao and Dr. Rama Krishna to take concrete steps for this in the next three months. He also remarked in next few years several Colleges would start offering the courses and pursuing activities in Telematics like TIFAC-CORE. Innovations/IP alone which can bring revenue to CORE would provide a leading edge over such institutions.
8. Prof. Rajagopalan desired that in the next six months faculty with the help of students should come out with white-papers bringing out the current status of work industries like Ford, Tata Motors, General Motors, Chrysler, Hitachi *etc.* are engaged in. These papers can cover areas like: In-car infotainment, Sensors, Navigation & Location, Intelligent Vehicle Safety, Fleet Management *etc.* These papers can be sent to experts (mentioned in item 6) for obtaining feedback/ inputs and also Dr. Venkatesh Prasad (Ford R&D). Dr. Prasad may also be invited to TIFAC-CORE whenever he is in India.

Implementation & Monitoring

9. Dr. Saxena mentioned that in order to facilitate and oversee implementation of recommendations of RMC and with a view to have a larger involvement of the host institution, a TIFAC-CORE Steering Committee (TCSC) may be created. This has already been communicated to the Principal, VRSEC who would be chairman of this Committee.

TCSC should meet every month to review the progress of TIFAC-CORE project vis-à-vis the Agreement, Baseline Document and Minutes of the RMC meetings. All the faculty of TIFAC-CORE and interested faculty from associated Departments and if possible, industry partners must be invited to these meetings. Plans for all activities (including resources) should be discussed at length and faculty/ staff for executing

each activity should be identified, before these are placed in the RMC meetings for approval. Other issues related to infrastructure and resources should also be on the agenda of such meetings. Dr. K. Mohana Rao was requested to take suitable action on this front. RMC members should be kept informed about the proceedings/ deliberations/ decisions of TCSC on a regular basis.

10. Based on the discussions, it was decided that date of start of the project would be February 1, 2009. The RMC would meet every six months to review the progress. Coordinator will ensure that an updated Progress Report and Action Taken Report (based on minutes of the RMC meeting) is made available to the members at least 10 days before any RMC meeting.
11. Dr. Saxena mentioned that any new activity to be carried out at the TIFAC-CORE should have the prior permission of RMC. The Coordinator would have to take approval for all activities planned at CORE in the next 6-12 months in the RMC meeting itself. In case of need in between, approval from the RMC members can be taken by circulation through email/fax.

Membership of international agencies

12. It was suggested that TIFAC-CORE should take-up the membership of a couple of leading professional Societies in Telematics area. It was pointed out that dedicated bodies do not exist in Telematics and TIFAC-CORE could think of filling this gap by starting a Society of professionals in Telematics. This issue would be taken up for further discussions in the next RMC meeting.

New partner in TIFAC-CORE

13. Dr. Sri Rama Krishna informed that Applied Digital Microsystems (ADM) Pvt. Ltd. & Optima Technologies & Consultants, Secundrabad have expressed their interest to join TIFAC-CORE as industry partners after the award of project to VRSEC. While ADM proposes to set up Advanced Embedded Systems Lab (20 set-ups) worth Rs. 125lakh (at 50% cost) & Optima Technologies plans to contribute for ARM architecture RTOS based Embedded Lab worth Rs. 25 lakh (at 50% cost) in the form of kind. Hailing this even before the take-off, Dr. Saxena clarified that relevant letters reflecting the intent of participation and quantum of contribution (actual worth would be approved by RMC) may be sent to TIFAC. This may also be done in case of other industries joining TIFAC-CORE at a later date.

Equipments

14. After discussions on the activities proposed at the TIFAC-CORE, RMC approved equipments worth about Rs. 330 lakh for procurement. (The list of approved equipments figures as **Annexure I** to these minutes). It was pointed out that furniture cannot be purchased out of TIFAC funds. Purchase rules and procedures of College may be adopted.

While approving the equipment, RMC made it clear that equipments in the next Phase will be considered if there is right kind of faculty with TIFAC-CORE to handle them

and space to install them. Faculty should also propose project/ activities based on them in the next RMC meeting. The academic programmes should be designed to make optimum utilization of the equipment being sought from TIFAC & industry. The students shall be doing projects on the live problems of the industry using these equipment.

Expenditures & Fund flow

15. Based on the cost of equipment approved by the RMC for purchase (Non-recurring expenditures -Rs. 766.16 lakh) and the activities projected (Recurring expenditures Rs. 25 lakh) at the TIFAC CORE during next one year, following fund-flow was proposed by the Coordinator

Non-recurring expenditures		Recurring Expenditures	
Industry	NI- Rs. 598.85 lakh Efftronics- Rs. 30.00 lakh	Industry	-
TIFAC	Rs. 156.00 lakh	TIFAC	-
College	-	College	Rs. 25.00 lakh
Total	Rs. 784.85 lakh	Total	Rs. 25.00 lakh

As per the Agreement signed between TIFAC & VRSEC, TIFAC contribution in the first year cannot exceed 40% of its commitment. It was noted that funds sought by VRSEC from TIFAC is 40% of its commitment (Rs. 156 lakh out of Rs. 390 lakh). The contribution of industry would be about 65% of revised contribution -Rs. 628.85 lakh from NI and Rs. 30 lakh from M/s. Efftronics, (out of total non-recurring component of Rs. 966.85 lakh)

Also, VRSEC would meet the recurring expenditures of Rs. 25 lakh in the first year of the project. VRSEC/Management was requested to deposit Rs. 10 lakh (after deducting the salary component) in the Bank Account of TIFAC-CORE within a month, to meet the recurring expenses projected for next one year.

16. RMC made a recommendation to TIFAC to release an amount of Rs. 156 lakh as the 1st installment for the TIFAC-CORE. This amount will be released by TIFAC against receipt of the finalized BLD, Bank Guarantee (from a nationalized bank) of equal amount and proof of deposition of Rs. 10 lakh for recurring expenses. It was made clear that TIFAC funds cannot be utilized for civil work, fixtures, furniture *etc.*

The release of any further funds by TIFAC would be contingent upon satisfactory utilization of funds received in first tranche and TIFAC getting the following

- Progress report for the completed period of the project
- Fund Utilization Certificate (GFR format) from competent authorities in respect of the TIFAC grant of Rs. 156.00 lakh
- Receipt & Expenditure statements (audited for completed financial year & provisional for incomplete period of the project)
- Trust Receipt of assets (on TIFAC's name) created out of TIFAC contribution

It was requested to the Management to create a revolving fund of Rs. 15-20 lakh for TIFAC-CORE to meet the expenditure in the event of delays in receipt of funds from TIFAC or industry. Management agreed to this suggestion.

17. Coordinator, TIFAC-CORE was asked to open an exclusive bank account for the TIFAC-CORE as per the Agreement and communicate its details to TIFAC.

TIFAC-CORE building

18. RMC was informed by the VRSEC Management that a building currently housing ECE & IT Departments of the College has been exclusively allocated for TIFAC-CORE. It was informed that the building (with 2444 sq. m. of area) would be vacated by April 2009 to make way for TIFAC-CORE. RMC insisted that Management must stick to its commitment as arrival and installation of equipment has to start by April if the activities projected are to be completed in time. It was suggested that there should be guest-house facilities in the campus for the visitors to the CORE, to which the management expressed its support. It was suggested that TIFAC-CORE should have a decent Facilitation Center for interaction with visiting industry personnel/ experts. TIFAC-CORE facilities can be exhibited here. The Members visited the building and inspected the facilities and were satisfied that the building is adequate for the needs of TIFAC-CORE..

Interactions & Outreach

19. RMC emphasized that significant industrial partnership there in the TIFAC-CORE needs to be sustained. CORE should keep industry partners informed about its activities and progress. It was recommended that CORE should showcase itself in the annual/ general events of SIAM, Indian Semiconductors Association *etc.* In order to attract students, TIFAC-CORE can be advertised on specific portals which are popular among students and a link to CORE web-site (being constructed) can be provided through it.
20. RMC suggested that a top-quality brochure be brought out by the TIFAC-CORE. The text of the brochure may be shown to RMC members and clearance be taken from TIFAC before they are printed (to avoid inaccurate information getting printed). The Coordinator should send copies of the brochure to the other TIFAC-CORES as well, as and when printed.
21. The TIFAC-CORE will have exclusive stationery for itself and the Coordinator was advised to collect the sample from other COREs for this purpose. The CORE will also have an exclusive telephone, fax and internet connection, funds for which have been committed by VRSEC
22. The CORE was advised to interact with other TIFAC-CORES, especially those, which have elements common to Telematics and also visit them. The expenses

incurred on such visits can be met out of the recurring expenditure approved for the TIFAC-CORE.

23. CORE would also have a web-site which is being designed in-house.

Next RMC meeting

24. The RMC would have its next meeting during August 2009.

25. The meeting ended with a vote of thanks to the Chair & attendees

The minutes have the approval of the Chairman

March 4, 2009

(Dr. Neeraj Saxena)
Member-Secretary, RMC

Action Taken Report

Para	Recommendations of 1 st RMC	Action Taken
1	Prof. Rajagopalan, the chairman RMC set out 3 targets for the CORE to be realized in next 3 years. These are (i) 6 papers in internationally acclaimed journals like IEEE (ii) 2-3 revenue earning international patents & (iii) at least one student becoming an entrepreneur and employing up to 50 people.	CORE is aiming to complete the targets set by the Chairman
4	Dr. K. Sri Rama Krishna, Coordinator, mentioned that he would start with establishment of first laboratory with the help of M/s. National Instruments Systems India Pvt. Ltd. (NI). Dr. Neeraj Saxena, Member Secretary mentioned that the finalized BLD must be made available to TIFAC as a condition to the release of first installment of funds from TIFAC.	Establishment of first laboratory with the help of M/s. National Instruments Systems India Pvt. Ltd. was completed. Finalized BLD was made available to TIFAC
5	Dr. Sri Rama Krishna informed that in the next six months, programs to train the faculty in the area of Telematics would be conducted in three phases.	First phase of training the faculty is also being completed (1 st Feb to 6 th Feb 2010)
6	Prof. Rajagopalan suggested that a brainstorming session should be organized involving industry partners, user (automotive) industry, faculty and students to study them and narrow down to 10 areas which TIFAC-CORE can focus upon	Brain Storming Session is being organized on 6 th Feb 2010
7	Prof. Chakraborty mentioned that since CORE <i>inter alia</i> would focus on innovation, VRSEC must have a very clear IPR Policy which will be applicable to TIFAC-CORE also. This is necessary for the protection and commercialization of the Intellectual Property generated at TIFAC-CORE. Prof. Rajagopalan suggested that the policy of IIT-Kanpur, IIT-Bombay and IIT-	Preparation of IPR policy for the institute and TIFAC CORE is being prepared. IPR policies of IIT-Kanpur, IIT-Bombay, IIT-Delhi and IIT-Bangalore have been obtained and being studied in the preparation of IPR policy to our institute and

	Bangalore can be studied to come out with one for the College.	CORE.
8	Prof. Rajagopalan desired that in the next six months faculty with the help of students should come out with white-papers bringing out the current status of work industries	White papers on various applications of Telematics were prepared and submitted to TIFAC and Chairman,RMC for guidance.
9	Dr. Saxena mentioned that in order to facilitate and oversee implementation of recommendations of RMC and with a view to have a larger involvement of the host institution, a TIFAC-CORE Steering Committee (TCSC) may be created. TCSC should meet every month to review the progress of TIFAC-CORE project vis-à-vis the Agreement, Baseline Document and Minutes of the RMC meetings. All the faculty of TIFAC-CORE and interested faculty from associated Departments and if possible, industry partners must be invited to these meetings	TIFAC-CORE Steering Committee (TCSC) has been constituted as per the constitution suggested by TIFAC. Copy of the list of the committee is enclosed. The TCSC met every month and discussed various issues related to the implementation of recommendations of RMC. Copy of the minutes of the meetings enclosed in the Annexure 1.
10	Coordinator will ensure that an updated Progress Report and Action Taken Report (based on minutes of the RMC meeting) is made available to the members at least 10 days before any RMC meeting.	Action Taken Report is submitted.
12	It was suggested that TIFAC-CORE should take-up the membership of a couple of leading professional Societies in Telematics area.	CORE has become member of ARAI and getting the journals regularly.
13	Dr. Saxena clarified that relevant letters reflecting the intent of participation and quantum of contribution (actual worth would be approved by RMC) may be sent to TIFAC. This may also be done in case of other industries joining TIFAC-CORE at a later date.	The letters of intent from the new industry are made ready and being submitted to TIFAC for guidance.
14	It was pointed out that furniture cannot be purchased out of TIFAC funds. Purchase rules and procedures of College may be adopted.	Furniture required was provided by the management and not procured from TIFAC funds. Purchase rules and procedures of

	<p>While approving the equipment, RMC made it clear that equipments in the next Phase will be considered if there is right kind of faculty with TIFAC-CORE to handle them and space to install them.</p>	<p>College are being adopted for procuring the equipment.</p> <p>Full time faculty were identified and placed in the CORE.</p> <p>Mr M.Kanti Kiran is made in charge of the NI lab created.</p>
15	<p>VRSEC/Management was requested to deposit Rs. 10 lakh (after deducting the salary component) in the Bank Account of TIFAC-CORE within a month, to meet the recurring expenses projected for next one year.</p>	<p>Management deposited Rs. 10 lakh (after deducting the salary component) in the Bank Account of TIFAC-CORE in the month March 09, to meet the recurring expenses projected for next one year.</p>
16	<p>RMC made a recommendation to TIFAC to release an amount of Rs. 156 lakh as the 1st installment for the TIFAC-CORE. This amount will be released by TIFAC against receipt of the finalized BLD, Bank Guarantee (from a nationalized bank) of equal amount and proof of deposition of Rs. 10 lakh for recurring expenses.</p> <p>It was made clear that TIFAC funds cannot be utilized for civil work, fixtures, furniture <i>etc.</i></p>	<p>Finalized BLD, Bank Guarantee (from a nationalized bank) of equal amount and proof of deposition of Rs. 10 lakh for recurring expenses were submitted to TIFAC in time.</p> <p>TIFAC funds were not utilized for civil work, fixtures, furniture <i>etc.</i></p>
17	<p>Coordinator, TIFAC-CORE was asked to open an exclusive bank account for the TIFAC-CORE as per the Agreement and communicate its details to TIFAC.</p>	<p>Opened an exclusive bank account for the TIFAC-CORE as per the Agreement and communicated its details to TIFAC in time.</p>
18	<p>RMC was informed by the VRSEC Management that a building currently housing CSE Department of the College has been exclusively allocated for TIFAC-CORE.</p> <p>It was informed that the building (with 2444 sq. m. of area) would be vacated by April 2009 to make way for TIFAC-CORE. RMC insisted that Management must stick to its commitment as arrival and installation of equipment has to start by</p>	<p>A building currently housing CSE Department of the College has been exclusively allocated for TIFAC-CORE be VRSEC Management.</p> <p>The building (with 2444 sq. m. of area) was vacated and handed over to TIFAC-CORE, as promised by the management.</p>

	<p>April if the activities projected are to be completed in time.</p> <p>It was suggested that there should be guest-house facilities in the campus for the visitors to the CORE, to which the management expressed its support.</p> <p>It was suggested that TIFAC-CORE should have a decent Facilitation Center for interaction with visiting industry personnel/ experts.</p>	<p>Guest-house facilities in the campus for the visitors to the CORE will be provided shortly.</p> <p>Decent Facilitation Center for interaction with visiting industry personnel/ experts will be provided shortly.</p>
19	CORE should keep industry partners informed about its activities and progress.	CORE is in regular touch with all the industry partners and informing them its activities and progress.
20	RMC suggested that a top-quality brochure be brought out by the TIFAC-CORE. The text of the brochure may be shown to RMC members and clearance be taken from TIFAC before they are printed (to avoid inaccurate information getting printed). The Coordinator should send copies of the brochure to the other TIFAC-COREs as well, as and when printed.	Top-quality brochure was brought out by the TIFAC-CORE. Clearance had been obtained from TIFAC before they were printed. The Coordinator distributed the copies of the brochure to the other TIFAC-COREs at all TIFAC COREs Meet organized at TCM 09 at Coimbatore.
21	<p>The TIFAC-CORE will have exclusive stationery for itself and the Coordinator was advised to collect the sample from other COREs for this purpose.</p> <p>The CORE will also have an exclusive telephone, fax and internet connection, funds for which have been committed by VRSEC</p>	<p>CORE has exclusive stationery for itself. The sample was collected from TIFAC CORE, VIT, Vellore.</p> <p>Exclusive telephone and fax are being provided to the CORE. Internet has been provided.</p>
22	The CORE was advised to interact with other TIFAC-COREs, especially those, which have elements common to Telematics and also visit them. The expenses incurred on such visits can be met out of the recurring expenditure approved for the TIFAC-CORE.	<p>Visited and Interacted with the following TIFAC COREs</p> <ol style="list-style-type: none"> 1.VIT, Vellore 2.TCE, Madurai 3.PSG, Coimbatore 4.KGIT,Coimbatore 5.Amrita, Coimbatore 6.MSRAS,Bangalore
23	CORE would also have a web-site which is being designed in-house.	CORE has a web-site designed in house.

PROGRESS REPORT
(FOR THE PERIOD 01-02-2009 TO 31-01-2010)
TIFAC-CORE, VRSEC, VIJAYAWADA

A. Major achievements at a glance

- Creation of exclusive building for **TIFAC CORE**



TIFAC CORE in TELEMATICS

- Establishment of NI Telematics Lab



NI Telematics Lab at the Centre

(h) Any other development (even negative developments, failures, delays etc. may be reported) NIL

C. Activities

(a) Academic

M.Tech programme in Telematics is being proposed to be introduced from next academic year

(b) Research

NIL

(c) Training/Skill up gradation courses

A five day training on NI LabView is being conducted from 08-02-2010 onwards for the faculty and students.

(d) Consultancy rendered

NIL

(e) Campus interviews organized

NIL

(f) Student placement

NIL

(g) Seminar/Workshop/Conference attended

Dr K Sri Rama Krishna and Mr M Kanti Kiran attended and presented a paper on Telematics at the National Conference on Trends in Telematics, Sri Ram Engineering College, Chennai

Mr P Phani Kumar and Sk Fayaz Ahamed attended the NI LabView Conference conducted by National Instruments, Bangalore at Hyderabad

Dr A Jhansi Rani and Mr P Phani Kumar attended a One day Conference on Role of Test and Measurement Instruments in Academia organized by M/sAgilent Technologies one of our leading industry partners, at Hyderabad.

Sk Fayaz Ahamed, Mr G Pavan Kumar and Ms A Anitha attended practical training on the NI equipment and NI Lab View Software at NIT Warangal.

Mr J Lakshmi Narayana and Mr P Phani Kumar attended a 2 day workshop on Automotive Infotronics at VIT Vellore.

(h) Seminar/Workshop/Conference organized

M/s National Instruments organized a one day workshop on their equipment and SW to the students of our college on 2nd Sep 2009

M/s National Instruments, Bangalore who are one of our major industry partners extended a power point presentation to entire faculty of our college and explained salient features of the equipment proposed to procure from them.

Coordinator organized an awareness presentation about TIFAC and TIFAC CORE in Telematics to entire faculty of our institution. The vision and mission of the Centre was also presented to the faculty.

M/s Optima Technologies organized one day seminar on Advanced Embedded Systems for the students and faculty of our institution.

Workshop was conducted by M/S ADM Mumbai on Embedded Systems
One day Workshop was conducted by M/S UTL Technologies, Hyderabad on Embedded Systems

Two day seminar on Wireless Communications was organized on 25-26, July, 2009
One day workshop on Signal Processing was organized on 13th July, 2009

(i) Industrial participation (names and area of interaction to be given)

M/s Efftronics, Vijayawada, one of the industry partners visited the CORE for technical discussions and finalizing their contribution to the centre.

M/s National Instruments also participated in the discussion.

M/s Rhode and Schwartz, Bangalore visited the CORE and discussed about establishment of EMI/EMC facility at the centre.

M/s Agilent Technologies, Bangalore visited the CORE and discussed about creation of Wireless lab in the centre. They earmarked the space required for setting up the lab in the centre.

A four member expert team from M/s Efftronics, Vijayawada visited our campus to observe the infrastructural facilities and expressed their satisfaction. They will be contributing to the centre in terms of direct cash and establishing Data Logging and Test Facility in the centre after signing the MOU on an auspicious day.

M/s Auto Tech Pvt Ltd, Hyderabad who executes various research projects for many government organizations using the proposed equipment visited the centre to see the facilities. They are invited to be the technology partners in our TIFAC CORE.

NI representative demonstrated the NI equipment to the final year BTech students and two batches of 4th year B.Tech students have taken up project called “ I-Lab” on the proposed NI Telematics equipment.

CG CoreEl visited the centre and had discussions to create a lab for EDA tools and submitted their proposal to be an industry partner.

A team R&D members of M/S Linkwell Telesystems Pvt Ltd, Hyderabad, one of our industry partners, led by its CEO Mr. A. Krishna Prasad visited the facilities and earmarked the space in the centre to establish their R&D lab in the centre. They are shortly signing the MOU with the centre.

Sri Y Harish Chandra Prasad, Chairman .Confederation of Indian Industries visited the Centre on 29th Jan 2010 and introduced the coordinator to the members of CII.

(j) Publicity efforts (including road-shows, participation in exhibitions etc.)

Prepared a high quality Brochure and distributed to all TIFAC COREs

Participated in the exhibition organized at the TIFAC COREs meet at Coimbatore.

(k) TIFAC-CORE web-site (Updation)

Created an exclusive website for TIFAC CORE and linked it to the college website and regularly updating it with new events conducted.

(l) Any other development (even negative developments, failures, delays etc. may be reported)

NIL

D. TIFAC-CORE interactions with Industries (other than student placement)

Industry	Nature/ purpose of interaction
National Instruments, Bangalore	The Coordinator visited Bangalore to present the details about the infrastructural facilities at the centre provided for them. Discussed and prepared the MOU.
Agilent Technologies, Bangalore	The Coordinator visited Agilent Technologies, Bangalore to discuss about the creation of Wireless Lab
Efftronics Systems Pvt Ltd, Vijayawada	Visited thrice Efftronics Systems Pvt Ltd, Vijayawada for technical discussion, preparing the MOU and faculty training at the centre. All the faculty of ECE department visited Efftronics Systems Pvt Ltd, Vijayawada to see their R&D facilities.
CG CoreEl, Hyderabad	The Coordinator visited CG CoreEl, Hyderabad for creation of EDA tools facility in the centre and invited them to be industry partners.
Linkwell Telesystems Pvt Ltd, Hyderabad	The Coordinator visited Linkwell Telesystems Pvt Ltd, Hyderabad to see their facilities on Telematics and discussed about their contribution and signing of MOU
Rohde & Schwartz, Bangalore	The Coordinator with his senior members had discussions with Rohde & Schwartz, Bangalore about the creation of EMI/EMC facility at the centre
Future Tech, Hyderabad	The Coordinator visited Future Tech, Hyderabad and discussed about inviting new industry partners and extended a presentation to all the industry representatives at Hyderabad.
HAL, Hyderabad	The coordinator along with representative of NI visited HAL to see the R&D facilities created using NI equipment.
CRI, Hyderabad	The coordinator along with representative of NI visited CRI to see the R&D facilities created using NI equipment.
Auto Tech, Hyderabad	The coordinator along with representative of NI visited Auto Tech, Hyderabad to see the R&D facilities created using NI equipment and invited them to be the technology partners in our centre.
<p>Student projects were carried out in industries like: Under the guidance of M/s National Instruments, Bangalore, two batches of final year students are doing project on I-Labs.</p>	



Coordinator's visit to TCE, Madurai



Coordinator's visit to HAL, Hyd

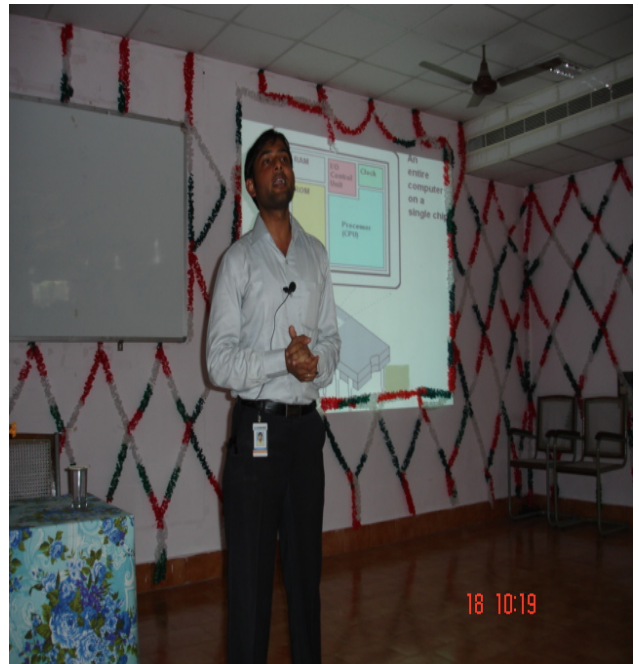


Faculty visit to Efftronics Systems Pvt Ltd, Vijaywada





Coordinator at PSG Coimbatore



Seminar on Embedded System
by UTL Technologies, Hyderabad



1st TCSC Meeting



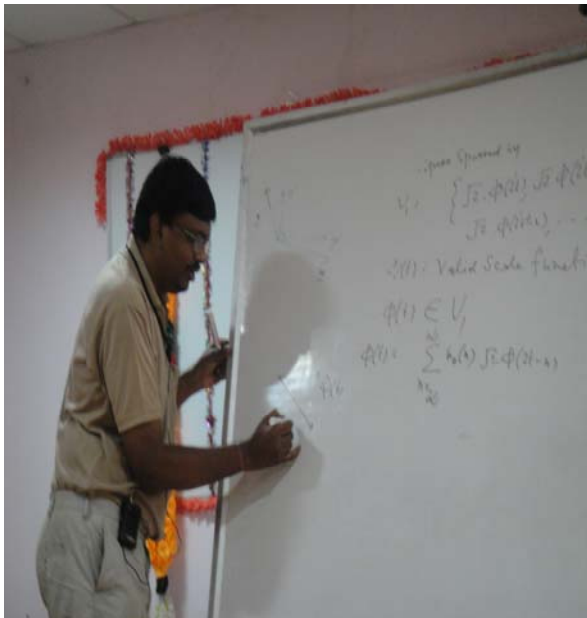
Sri Harish Chandra Prasad,
Chairman CII



First Purchase Committee Meeting in the college



Prof SS Das from IIT Kgp on Wireless Communications



Prof Mrutunjay Chakraborty, IIT Kgp on Signal Processing



Mr K Vasu from UTS on Wireless Commns



Coordinator giving his presentation and his team members at the exhibition



Mr SatyaGopal from NI Bangalore talking about NI LabView to the ECE students



M/s Agilent Technologies, demonstrating the equipment to the faculty and students of ECE



First TCSC & Purchase Committee Meeting

E. Fund inflow during the Period

Source	Committed during last RMC	Actual amount brought-in	Remarks, if any
Institution	25 Lakhs	10 Lakhs	--
Industries	628.85 Lakhs	598.85 Lakhs	M/s Efftronics Systems Pvt Ltd, Vijayawada is extending its contribution of Rs 25 lakhs on 06-02-10
TIFAC	156 Lakhs	156 Lakhs	--

F. Expenditure during the Period

(a) Recurring

Item/Activity	Amount (in lakh of Rs.) spent
Maintenance of plant/machinery/ equipment/ infrastructure	0.20
Consumables	--
Faculty & technical/administrative manpower committed for CORE	--
TA, DA, other allowance & incidental expenses incurred (for RMC meetings)	--
TA, DA, other allowance & incidental expenses incurred (for CORE faculty/staff attending meetings)	0.50
Conference/Symposia organized	--
Books, Journals, Periodicals, CD-ROMs, Video tapes for the CORE	--
Telephone, Fax, Internet facility exclusive to CORE	--
Publicity material & stationery for CORE	--
CORE website/portal	--
Contingency & Miscellaneous	--
TOTAL	0.70

Recurring-expenditure approved by RMC	Actual expenditure	Reason(s), for deviation
10 lakhs	0.70 Lakhs	

(b) Non-recurring

Non-recurring-expenditure approved by RMC	Actual expenditure	Reason(s), for deviation
784.85 Lakhs	733.38 Lakhs	

G. Revenue generated

As the CORE has just been established, revenue generation activity will be starting after taking up projects from industries.

Activity	Amount of revenue generated	Expenditure	Overhead deductions	Amount ploughed back into TIFAC-CORE account
Academic course <ul style="list-style-type: none"> • Short-term courses • Training programmes • Diploma Courses • Degree courses • Other courses 				
R&D projects				
Consultancy projects				
Other sources (including interest accrued on TIFAC-CORE funds)				
T O T A L				

Record of Minutes of Meeting of the TIFAC - CORE Steering Committee (TCSC)

Extracts

Steering Committee Meeting

Date : 14th March, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- TIFAC CORE Steering Committee (TCSC) was constituted with Principal as chairman to review the progress of TIFAC-CORE project vis-à-vis the Agreement, Baseline Document and Minutes of the RMC meetings. Meetings were conducted and minutes were recorded accordingly
- Base Line Document has been modified as per the suggestions given by the Chairman and Members of RMC and sent to TIFAC, New Delhi and it was approved.
- An exclusive Bank Account has been opened in the name of TIFAC CORE – VRSEC jointly operated by the Principal and the Coordinator.
- A bank guarantee for Rs.1.56 Crores was extended by the management and the same has been submitted to TIFAC, New Delhi.
- A separate website was created for our TIFAC CORE with a link to our college website. The web link is www.vrsiddhartha.ac.in/tifac.

Record of Minutes of Meeting of the TIFAC - CORE Steering Committee (TCSC)

Extracts

Steering Committee Meeting

Date : 25th April, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- TIFAC CORE Purchase Committee (TCPC) was constituted with Principal as Chairman to monitor the purchase of the proposed equipment as per our college procurement procedures.
- An amount of Rs.10 Lakhs has been credited to the TIFAC CORE account by the management towards recurring expenditure
- White papers on 'Telematics' were prepared by the faculty and students and submitted to TIFAC, New Delhi as per the suggestion made by the Chairman, RMC. The same have been sent to all the RMC members for their opinion.
- Final Boucher ha been prepared and the copies of the same ha been circulated among the TCSC members
- A separate TIFAC CORE building and Guest house has been sanctioned by the management

Record of Minutes of Meeting of the TIFAC - CORE Steering Committee (TCSC)

Extracts

Steering Committee Meeting

Date : 09th May, 2009

Time : 2:30PM

Venue : Principal's Chamber

- Brief information has been shared by the coordinator who visited various R & D labs of organizations such as BHEL, HAL and RCI at Hyderabad where the proposed equipment is being used.
- An awareness program has been arranged by the coordinator about TIFAC and TIFAC CORE in Telematics to entire faculty of our institution. The vision and mission of the Centre was also presented to the faculty.
- It has been proposed to send two faculty members to attend a One day Conference on “Role of Test and Measurement Instruments in Academia” organized by M/s. Agilent Technologies one of our leading industry partners, at J N T University, Hyderabad.
- Final format of the TIFAC website has been approved by all the members present.
- It has been proposed to provide exclusive stationary and telephone, FAX and Internet connections to the CORE

*Record of Minutes of Meeting of the TIFAC - CORE Steering Committee
(TCSC)*

Extracts

Steering Committee Meeting

Date : 13th June, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- Two faculty members attended a One day Conference on Role of Test and Measurement Instruments in Academia organized by M/s Agilent Technologies one of our leading industry partners, at Hyderabad.
- M/s National Instruments, Bangalore who are one of our major industry partners extended a power point presentation to entire faculty of our college and explained salient features of the equipment proposed to procure from them.
- Two faculty members have attended a NI LabView Conference conducted by National Instruments, Bangalore at Hyderabad.
- It has been proposed to subscribe for Membership in international professional societies

*Record of Minutes of Meeting of the TIFAC - CORE Steering Committee
(TCSC)*

Extracts

Steering Committee Meeting

Date : 25th July, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- It has been proposed that the college library may subscribe for ARAI (Automotive Research Association of India) and receiving their publications regularly by the TIFAC CORE.
- Coordinator visited M/s Auto Tech Pvt Ltd, Hyderabad who executes various research projects for many government organizations using the proposed equipment under TIFAC CORE.
- Letter heads for TIFAC CORE has to be designed as per the decisions of the RMC held on 08th February 2009

- *Record of Minutes of Meeting of the TIFAC - CORE Steering Committee (TCSC)*
-

Extracts

Steering Committee Meeting

Date : 26th August, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- The college library has subscribed for ARAI (Automotive Research Association of India) and receiving their publications regularly by the TIFAC CORE.
- Letter heads for TIFAC CORE have been designed as per the decisions of the RMC held on 08th February 2009 and the same have been approved by all the members present.

*Record of Minutes of Meeting of the TIFAC - CORE Steering Committee
(TCSC)*

Extracts

Steering Committee Meeting

Date : 26th September, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- An amount of Rs1.56 Crores was wire transferred to TIFAC CORE on 27th of August 09 by TIFAC, New Delhi.
- M/s National Instruments organized a one day workshop on their equipment and SW to the students of our college on 2nd Sep 2009
- It has been proposed to organize a one day workshop by M/s National Instruments on their equipment and SW to the students of our college during the first week of September.
- Customs Duty Exemption certificate was applied from Acharya Nagarjuna University for the procurement of Telematics equipment.

*Record of Minutes of Meeting of the TIFAC - CORE Steering Committee
(TCSC)*

Extracts

Steering Committee Meeting

Date : 24th October, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- Customs Duty Exemption certificate was obtained from Acharya Nagarjuna University for the procurement of Telematics equipment.
- Technical bids have been called for the procurement of equipment and software for the Telematics lab.
- Coordinator visited M/s Efftronics, Vijayawada, another industry partner, for technical discussions and finalizing their contribution to the centre.
- Two faculty members have presented a paper on Telematics at the National Conference on Trends in Telematics, Sri Ram Engineering College, Chennai

*Record of Minutes of Meeting of the TIFAC - CORE Steering Committee
(TCSC)*

Extracts

Steering Committee Meeting

Date : 28th November, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- On the recommendations of the TCPC, purchase order was placed on M/s National Instruments, Bangalore which had qualified in the technical and price bids.
- Quotations have been called through our college website for the supply of various computer gadgets and the comparative evaluation statement has been prepared.
- It has been proposed to start the M Tech course on 'Telematics' under TIFAC CORE and the syllabus is to be submitted by the next meeting during November 2009.
- B Tech final year projects, related to the research activity area, identified by the TIFAC CORE Committee were circulated with other members.
- It has been proposed that the coordinator shall visit the TIFAC CORE, VIT, Vellore on 10th of December 2009
- Introduction of IPR policy for the TIFAC CORE is under process. The IPR policy documents of IIT Bombay, IIT Kharagpur, IISc Bangalore and IIT Delhi are collected and referred for this purpose
- It has been proposed to send a team of five faculty members for practical training on the NI equipment and NI Lab View Software at NIT Warangal from 6th -13th Dec 09.

*Record of Minutes of Meeting of the TIFAC - CORE Steering Committee
(TCSC)*

Extracts

Steering Committee Meeting

Date : 16th December, 2009

Time : 2:30PM

Venue : Principal's Chamber

Minutes:

- A brain storming session on Telematics is being convened on 9th of January 2010, as per the decisions of the Chairman, RMC and Coordinator, TIFAC, New Delhi.
- It has been conveyed to the members that the date for the 2nd RMC meeting will be held on 10th of January 2010, as per the decisions of the Chairman, RMC and Coordinator, TIFAC, New Delhi.
- The Chairman and other members RMC will be visiting the TIFAC CORE to inaugurate the Telematics Lab on 10th Jan 09.
- It has been proposed to that the coordinator and a team of faculty shall participate in the TCM 2010 (TIFAC COREs Meet 2010) being organized during 22nd -24th Dec 09, at Coimbatore by three institutions, namely Amrita Institute of Technology, PSG College of Engineering and Kumaraguru Engineering College.