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(7)

**VEL TECH Dr. RR AND Dr. SR TECHNICAL UNIVERSITY
CHENNAI, TAMIL NADU, INDIA
MEMORANDUM OF UNDERSTANDING**

**BETWEEN
VELTECH TECHNICAL UNIVERSITY, CHENNAI, INDIA
(Declared as Deemed-to-be University u/s 3 of UGC Act, 1956)
AND
OKLAHOMA STATE UNIVERSITY
STILLWATER, OKLAHOMA, USA 74078**

Preamble:

Oklahoma State University's (OSU) proud legacy of extensive international activity had its beginnings more than fifty years ago with the United States President Harry S. Truman's appointment of OSU President Henry G. Bennett as the founding director of the Point Four Program. OSU's initial contribution to the Point Four Program was the establishment of an agricultural college in Ethiopia and played a significant role in the Program's evolution into the present-day United States Agency for International Development. Over the past fifty years, OSU has worked cooperatively with major international organizations and educational institutions, this work having benefited more than one hundred nations. On April 1, 1999, OSU entered a new era of international involvement with the dedication of the School of International Studies, which now serves as the center of all international endeavors undertaken by the University.

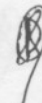
Vel Tech Dr. RR and Dr. SR Technical University (VTU) have its origins in the Vel Tech Engineering College and associated group of educational institutions and it has been elevated to Deemed University status under the Government of India's UGC Act of 1956. This University is the result of the vision of its Chancellor Dr. R. Rangarajan and his associates. With this new status, VTU is in a position to independently enter into collaborative arrangements with institutions around the world.

Contacts between OSU and VTU started in late 2000 with the visit of Dr. Rangarajan to Stillwater which resulted in a Memorandum of Understanding (MOU) dated September 29, 2000 to cooperate in post graduate engineering education. Subsequent lack of serious activity due to being an affiliated institution and the opportunities arising out of the elevation of VTU to University status, this new MOU will supersede the old one with a much broader scope and potential.

Both VTU and OSU have shown serious renewed interest in collaborative endeavors as expressed during a meeting of the representatives of both sides (including Dean Karl N. Reid of OSU and Chancellor R. Rangarajan of VTU) in Coimbatore, India on January 10, 2009.

Understanding:

In an effort to continue and expand its long legacy and to promote increased understanding between the United States of America and the Republic of India, Oklahoma State University enters into this general agreement with Vel Tech University.



Chennai, Tamil Nadu, India. The two institutions hereby agree to pursue cooperative activities to be conducted on the basis of equity and mutual benefit of both parties. Such activities may involve the areas of instruction, research and extension and may include many spheres of activities and exchanges as outlined in this agreement.

Specific broad initiatives developed under this MOU involving several faculty members at both institutions shall be negotiated by both sides. Details of program content and attendant financial arrangements shall be clearly outlined in a separate document for each such activity and it will be entitled *Activity Agreement* and will be signed by appropriate authorized institutional officials. However, while the objective of this umbrella MOU is to cover broad areas of interaction between OSU and VTU, tasks involving a few faculty members and the host institution will be left to the individual participants to work out the details with a view to promote and accelerate additional interactions.

The terms of this memorandum shall begin on the date of signature by both parties and shall continue to effect until either of the parties expresses in writing to the other a desire to terminate. Such termination shall have no effect on any outstanding obligations contractually agreed upon between the parties in Activity Agreements. In the event that discrepancies arise between this document and any translation of it to a language other than English, this English version shall prevail.

The signatures affixed below attest to the commitment of both institutions to the development of intellectual capital and to the preparation of a citizenry empowered to meet the challenges of the global environment in which they must live.

Spheres of Activity

VTU, Chennai, India and OSU in Stillwater, Oklahoma, USA have agreed on establishing contacts and developing reciprocal exchange and cooperation in academic and research activities between the two universities on the basis of friendship, equality, and mutual help. Potential spheres of activity are enumerated below.

1. Plan, organize, assist and co-sponsor periodic international academic events such as Conference, Exposition, Competition or Seminar at VTU.
2. Some of the OSU faculty will become members of the Academic Council/Board of Studies of VTU. To start with, Dr. Ramakumar and Dr. Komanduri have agreed to be so, subject to the rules of such bodies. This may involve full participation in associated meetings and planning suitable courses of action.
3. OSU faculty members will visit VTU to conduct courses in which VTU requires assistance or supplement its resources. VTU students will earn credits for attending such courses based on the number of hours such courses are offered. This activity can start with Drs. Ramakumar and Komanduri being invited by VTU to offer intensive three-week courses on appropriate topics to integrate with VTU students' academic programs.
4. Both VTU and OSU can use the MOU and tie-up arrangements in their respective publicity materials. ✓

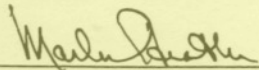


5. OSU will allow VTU students at all levels (BS, MS and Ph.D) to take a course or courses up to one semester at OSU and upon successful completion of such course(s), such students shall be awarded appropriate credits by VTU depending on the hours attended and tests passed as certified by the faculty.
6. Compensation schemes for activities such as the ones described in this memorandum shall be arrived at by the parties well in advance.
7. Selected faculty members from VTU could come to OSU to pursue their Ph.D. programs at OSU on tripartite agreement including financial support reached well in advance by the concerned faculties in both universities.
8. OSU faculty members may offer short courses eligible for earning credits by VTU students during semester breaks and summer months on topics of mutual interest with pre and post event follow up.
9. OSU faculty members may help in setting up world-class laboratories in appropriate areas such as Advanced Materials and Manufacturing (to be led by Professor Komanduri) with the help of industry, government and VTU support. This could lead to the establishment of an autonomous Advance manufacturing Institute (AMI) at VTU and lay the foundation for such activities in other selected fields.
10. VTU and OSU shall strive to encourage and improve faculty exchanges of various sorts including joint research projects at the post-doctoral level and other similar educational activities.
11. The possibility of VTU offering degrees with students taking a mix of courses at OSU and VTU, similar to a twinning program, shall be explored in detail.
12. Selected group of VTU faculty members with Ph.D. degrees could visit OSU to interact with faculty members in different areas to explore potential collaborative relationships.
13. OSU will encourage interested OSU students to spend brief periods in VTU campus to enhance their international experience.
14. VTU will encourage its students who wish to pursue higher studies in the U.S. to apply and consider OSU as a preferred destination while OSU will encourage and prefer selected VTU graduates satisfying all the OSU admission requirements and procedures to pursue their MS and/or Ph.D. programs at OSU.
15. Explore the possibility of such scope for mutual cooperation and collaboration as described in this document to other OSU schools, colleges and entities such as the Management Science and Information Systems (MSIS) program in the Spears School of Business.
16. Both institutions will encourage OSU faculty members who can and are willing to spend an entire semester at VTU (perhaps on a sabbatical or some such arrangement) to offer courses that will be included in the students' academic programs.
17. Both OSU and VTU expressly agree to consider this arrangement as inclusive and therefore will avail every opportunity that arises for expanding the nature, content and scope of this understanding for the holistic benefit of universities, their faculties and student communities at large.
18. This agreement will go into effect from the date of signatures. It will be reviewed periodically and will continue to be effective by mutual consent. ✓

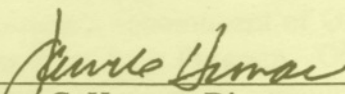


Signature page:

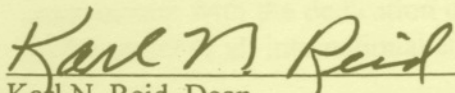
OKLAHOMA STATE UNIVERSITY


Marlene Strathe, Provost and
Senior Vice-President

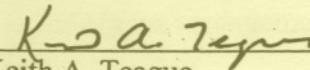
Date 4/29/09

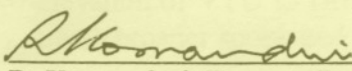

James G. Hromas, Director
International Education and Outreach

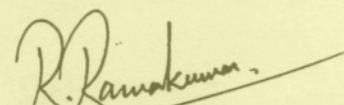
Date 4-25-09


Karl N. Reid, Dean
College of Engineering, Architecture & Technology

Date 4/23/09

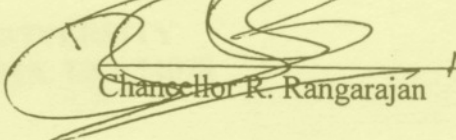

Keith A. Teague
Head, School of ECE
Date 4/22/09


R. Komanduri, Regents Professor
School of MAE
Date April 22, 09

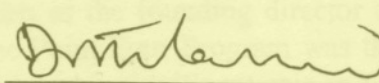

R. Ramakumar, Regents Professor
School of ECE
MOU Coordinator

Date April 22, 2009

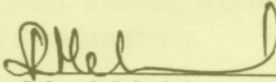
VEL TECH Dr. RR and
Dr. SR Technical University


Chancellor R. Rangarajan

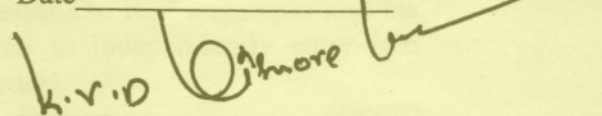
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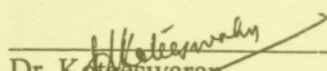

Dr. Sakunthala Rangarajan
Pro-Chancellor

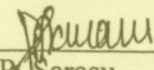
Date _____


Mrs. Mahalakshmi Kishore
Vice-Chancellor

Date _____


Mr. K. V. D. Kishore Kumar
Director
Date _____


Dr. Koteswaran
Registrar
Date _____


Mrs. P. Sarasu
Academic Planning

Date _____

**ACTIVITY AGREEMENT
BETWEEN
VEL TECH Dr. RR AND Dr. SR TECHNICAL UNIVERSITY
CHENNAI, TAMIL NADU, INDIA
AND
OKLAHOMA STATE UNIVERSITY
College of Engineering, Architecture and Technology
Stillwater, Oklahoma, USA 74078**

Preamble:

An overarching Memorandum of Understanding (MOU) between Oklahoma State University (OSU) and Vel Tech Dr. RR and Dr. SR Technical University (VEL TECH) was signed in early April 2009 time frame with spheres of activity ranging from exchange of scholars, faculty members and teaching and scientific research materials and to promote cooperation in organizing scientific and technical meetings, conferences and associated activities. This Activity Agreement derives its credence from the MOU mentioned above; with the specific goal of cooperatively organizing an international conference entitled **International Conference on Smart Technologies for Materials, Communication, Control, Computing and Energy** in Chennai, Tamil Nadu, India during January 5 – 7, 2011.

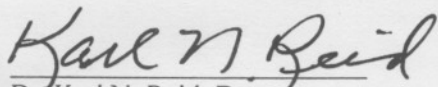
Activity Details

- Assistance in recruiting appropriate Keynote Speakers from within OSU and elsewhere.
- Assistance in soliciting technical paper submissions for the conference.
- Recruiting an OSU faculty member as the Conference Co-Chair.
- Provide assistance in publicizing the event by as many means as possible.
- Assistance in formulating the scope and topics of interest.
- Assistance in identifying appropriate technical journals for possible publication of selected papers presented in the conference.
- Recruiting an OSU faculty member as the co-patron for the conference.
- Explore the possibility of OSU assisting and cooperating in other ways, both technical and non-technical, to make the conference a success.

Signature page to follow

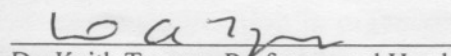
Signature Page

Oklahoma State University

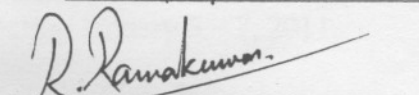


Dr. Karl N. Reid, Dean
CEAT, OSU, Stillwater, OK USA

Date _____

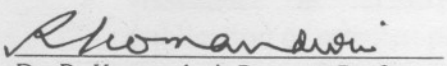

Dr. Keith Teague, Professor and Head
School of ECE, OSU

Date 8/2/2010


Dr. R. Ramakumar

Regents and PSO/Albrecht Naeter Prof.
MOU and International Coordinator
OSU, Stillwater, OK USA 74078

Date July 23, 2010


Dr. R. Komanduri, Regents Professor
School of MAE, OSU, Stillwater
OK USA

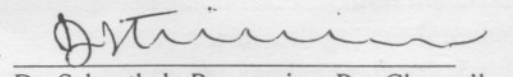
Date Aug 2, 2010

Vel Tech Dr. RR and Dr. SR Technical
University

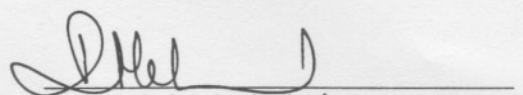


Dr. R. Rangarajan, Chancellor
VEL TECH, Chennai, India

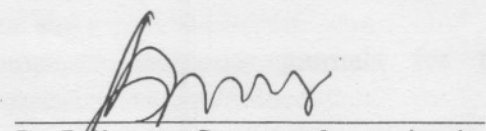
Date _____


Dr. Sakunthala Rangarajan, Pro-Chancellor
VEL TECH, Chennai, India

Date _____


Mrs. Mahalakshmi Kishore, Chair Person
Management Trustee, VEL TECH
Chennai, India

Date _____


Dr. E. Kannan, Convener, International
Conference, VEL TECH, Chennai, India

Date _____



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

Oklahoma State University, Stillwater, USA

Name of the Research Institute/University/ Organization	Country	Duration of the Agreement	Academic Year	Date of Signing	Date of Expiry	P
Oklahoma State University, Stillwater	USA	Till Anyone Party tends to Break	2008-09	23.04.2009	Till Anyone Party tends to Break	Human Conferenc

Actual Activities with Oklahoma State University, Stillwater, USA

A.Y. 2016-17

Faculty Mobility (Incoming - Short Courses) - 1


MoU Coordinator





Veltech Dr.RR & Dr.SR University®
(Estd. u/s 3 of UGC Act, 1956)

School of Mechanical and Construction

Department of Civil Engineering

Specialized one credit course on
“Contemporary issues in Water Resources in India”
(1157CE902)

by

Prof. Dr. Avdhesh K.Tyagi

Oklahoma State University, USA



Held on

Date: January 30 to February 10, 2017

Tyagi, Avdhesh K., Ph.D., P.E.



Associate Professor

Water Resources Engineering

Office: 109 Engineering South

Phone: 405-744-9307

Email: tyagi@okstate.edu

Education

- Ph.D. - Water Resources Engineering, University of California-Berkley, 1971
- M.S. - Hydraulic Engineering, University of Roorkee, India, 1967
- B.S. - Civil Engineering, University of Allahabad, India, 1965

Research Interests

Dr. Tyagi's research interests include finite element modeling, GIS applications to surface water modeling, Fuzzy theory to ground water modeling, remediation of hazardous waste sites, bridge and culvert and scour modeling.

Current Research Projects

- Laboratory Modeling of Energy Dissipation in Broken-back Culverts

Awards and Recognition

- Fellow, American Society of Civil Engineers
- Fellow Award, Oklahoma Society of Professional Engr., 2003
- Fellow Award, National Society of Professional Engineers, 2004
- Outstanding Engineer of the Year Award, Frontier Chapter, 2003
- Outstanding Engineer of the Year Award, Oklahoma Society of Professional Engineers, 2004
- Outstanding Engineer-in-management, Oklahoma Society of Professional Engineers, 2005
- Advanced Leadership Award, Oklahoma State University, 2000

Professional Memberships

- American Society of Civil Engineers
- American Water Resources Association
- International Water Resources Association
- National Society of Professional Engineers
- Oklahoma Society of Professional Engineers

Professional Registrations

- Registered Professional Engineer, Oklahoma, No. 13147
- Registered Professional Sanitary Engineer, Arizona, No. 10829

Recent Publications

- Tyagi, A. K., "Groundwater Quality – Emerging Challenges," Water, Environmental, Energy and Society Congress, 2009.
- Tyagi, A. K., "WHPA Modeling of Aquifers on GSS Platform," International Water Resources and Environmental Engineers, ASCE, 2008.
- Tyagi, A. K., "Natural Degradation in Arkansas River, Oklahoma," International Water and Environmental Congress, 2007.
- Tyagi, A. K., "DRASTIC Modeling for Vulnerability Assessment of Aquifers on GIS Platform," International Water Resources and Environmental Congress, 2006.
- Tyagi, A. K., "Modeling of fractured Aquifer in Oklahoma, USA," International Perspective on Environmental and Water Resources, 2006.
- Tyagi, A. K., "A Ranking Methodology for Scour-Critical Culverts in Oklahoma," International Environmental and Water Resources Congress, ASCE, 2005.
- Tyagi, A. K., "Modeling of a Fractured Aquifer in Oklahoma Using Continuum Approach," International Environmental and Water Resources Congress, ASCE, 2005.

Name of the Professor: Prof. Avdhesh K.Tyagi

University & Country: Oklahoma State University (Stillwater), USA

Course Title: Contemporary issues in Water Resources - India

Department: Civil Engineering

Students: VIth Semester & M.Tech (First Semester)

Training Program date: 13th February 2017 to 24th February 2017

Course Contents:

1. Hydrologic cycle,
2. Weather and precipitation
3. Evapotranspiration, infiltration, stream flow
4. Groundwater, hydrographs, and floods.
5. Information will be derived for droughts and climate change.

Dr. E. B. Perumal Pillai
Professor & Head.

VTU/Civil/Short Term Course/ 2016-17 (Even) / 26

The Director Academics
Veltech Dr. RR Dr. SR University.

Conduction of Short-term Course- Approval Reg.,

Prof. Avdhesh K. Tyagi, Professor from Oklahoma State University, USA will be visiting our University from February 15th to Feb 24th, 2017 to conduct a Short term course on "Contemporary Issues in Water Resources in India" for III Year Civil Engineering students and B.Tech I Year Environmental Engineering Students. Prof. Avdhesh K. Tyagi, will be giving lecture from 10.00 am to 1.00 pm for 10 days (30 hours). The following students are shortlisted to attend this programme.

S. No.	Name	S. No	Vtu No.	Name
1	ALOK SINGH YADAV	18	VTU 4865	HEMA GAYATHRI M
2	ARAVIND KUMAR K	19	VTU 5053	JORDANDKHAR
3	G. PRATHAP REDDY	20	VTU 5585	NIRASHA HALDER
4	KALPANA G	21	VTU 5214	PENIKALAPATI MURALI KRISHNA
5	BHARGAVA REDDY	22	VTU 5316	RAHUL ROHIT M
6	MEGHANA S	23	VTU 4849	ROHIT KUMAR SINGH
7	SAMPATH SARKAR	24	VTU 4748	SATHISH KUMAR A N
8	SANJEEV KUMAR	25	VTU 5326	SHANMUGARAJA P
9	AGNI HOTHRI	26	VTU 5039	SUSMITHANATH
10	SHIVANAND MISHRA	27	VTU 4844	UMABHAKTA
11	RAVALI	28	VTP1784	R.SANTHOSH KUMAR
12	UPPULEELA MOHAN	29	VTP1886	GOKUL NATH
13	VANGA ANIL KUMAR	30	VTP1789	SONA THAHSEEN
14	AMERICO THANGAKHIEW	31	VTP1805	SANTHIYA.J
15	BADDAM SAI NIVEDHAN REDDY	32	VTP1827	MUTHU
16	CHANDRAVADHANA D	33	VTP1855	SRIDEVI
17	GUNTI SAI MOUNIK	34	VTP1894	INDUMATHI R

The short-term courses for 2 credits as under VTU R15 Clause 7.2.8.3 and under VTU Clause 6.2 the requirements include attending 30 lecture hours, completing assignments on time and passing a final examination. The course syllabus is enclosed here with. The syllabus for the course has been placed in the internal Board of studies and the same has been approved. The course may be given 2 credits after successfully completing the course requirement. Further it is planned to give certificates for the above B.Tech Civil Engineering students (III Year) for attending the course.


Head of the Department

SCHOOL OF MECHANICAL AND CONSTRUCTION ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING
COURSE ON CONTEMPORARY ISSUES IN WATER RESOURCES IN INDIA
B.TECH CIVIL ENGINEERING (III YEAR /VI SEMESTER) FEBRUARY 2017
MARK STATEMENT

NO	VTU NO	NAME	INTERNAL (40)	EXTERNAL (60)	MARKS (100)
	VTU5089	ALOK SINGH YADAV	35	40	75
	VTU5238	ARAVINTH KUMAR	30	45	75
	VTU5684	KUNDURA PRATHAP REDDY	28	41	69
	VTU5006	KALPANA G	35	31	66
	VTU5756	MARAMREDDY PHANI BHARGAVA REDDY	31	49	80
	VTU5029	MEGHANA S	10	Absent	10
	VTU4966	SAMPAD SARKAR	10	Absent	10
	VTU5374	SANJEEV KUMAR	34	16	50
	VTU4953	SHASHANK AGNIHOTRI	30	52	82
	VTU5005	SHIVANAND MISHRA	8	Absent	8
	VTU5369	UPPARLAPALLI RAVALI	21	34	55
	VTU5682	UPPU LEELA MOHAN	34	48	82
	VTU5048	VANGA ANIL KUMAR	15	20	35
	VTU5264	AMERIOCA THANGKHIEW	33	33	66
	VTU5094	BADDAM SAI NIVEDHAN REDDY	31	37	68
	VTU5224	CHANDRAVADHANA D	35	46	81
	VTU5608	GUNTI SAI MOUNIK	32	30	62
	VTU4865	N.HEMA GAITHRI	29	33	62
	VTU5053	JORDAN DKHAR	30	30	60
	VTU5585	NIRASHA HALDER	10	Absent	10
	VTU5204	PENIKALAPATI MURALI KRISHNA	15	35	50
	VTU5306	M. RAHUL ROHIT	32	36	68
	VTU4849	ROHIT KUMAR SINGH	15	48	63
	VTU4748	SATHISH KUMAR A N	29	46	75
	VTU5326	SHANMUGA RAJA. P	33	38	71
	VTU5039	SUSMITA NATH	27	23	50
	VTU4844	UMA BHAKTA	15	27	42
	VTU5774	YERRAPPAGARI PALLAVI PRIYA	28	24	52
	VTU5770	RAMALA MANVITH KRISHNA REDDY	27	41	68
	VTU5284	M.D.IMRAN	35	45	80

Avtyagi
Dr. AVDHESH K. TYAGI
PROFESSOR
OKLOHOMA STATE UNIVERSITY

SCHOOL OF MECHANICAL AND CONSTRUCTION ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

COURSE ON CONTEMPORARY ISSUES IN WATER RESOURCES IN INDIA

MTECH ENVIRONMENTAL ENGINEERING (I YEAR /II SEMESTER)

FEBRUARY - 2017

SEMESTER EXAM MARK STATEMENT

END	VIP NO.	NAME	INTERNAL (40)	EXTERNAL (60)	MARKS (100)
	VIP 174	R.SANTHOSH KUMAR	25	48	73

Avdesh K. Tyagi
Dr. AVDHESH K. TYAGI
PROFESSOR
OKLOHOMA STATE UNIVERSITY

DINT/2017/51

Veltech Dr.RR & Dr.SR University

(Estd. u/s 3 of UGC Act, 1956)

Our Ref. No: 2017/VF2/2

Your Ref. No:

Date: 20.02.2017

S.Sivaperumal

Director (i/c)- International Relations.

Submitted for the Approval:**Name of the Professor:** Prof. Avdhesh K.Tyagi**University & Country:** Oklahoma State University (Stillwater), USA**Course Title:** Contemporary issues in Water Resources - India**Department:** Civil Engineering**Students:** VIth Semester & M.Tech (First Semester)**Training Program date:** 13th February 2017 to 24th February 2017

Sl.No	Description	Amount in INR
1	Flight Charges (i) Oklahoma City to Chicago (338.19 USD) (ii) Chicago to New Delhi (2236.95 USD) (iii) New Delhi to Chennai (Rs.4717) (Actual Total : Rs.1,77,033) (He has booked on his own in Business Class & Chennai to Delhi to be booked by Veltech)	75,000
2	Course Honorarium (Rs.3000 * 30Hrs) (Net Amount & Tax Free)	90,000
	Total	1,65,000

(Rupees one lakh and Sixty five thousand only)

In this regard, I request your approval for transferring the equivalent USD to the Following Account,

Name: Avdhesh K.Tyagi

Account No: 00205112

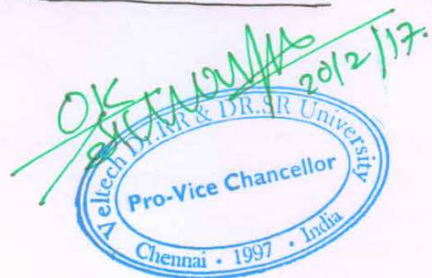
Bank: University & Community Fed Credit Un.

Code: 303185813

Thank You,

S.Sivaperumal

S. Sivaperumal

Director International Relations
Veltech Dr.RR & Dr.SR University

400 feet Outer Ring Road, Avadi,
Chennai-600 062, Tamil Nadu, India.
Landline : +044 2684 0332 / 2684 0262
Toll Free : 1800 3070 6949
Email : vtu@veltechuniv.edu.in
Website : www.veltechuniv.edu.in