

Student Exchange Agreement
Between
School of Mechanical and Construction, Vel Tech Rangarajan
Dr.Sagunthala R&D Institute of Institute of Science and Technology,
India
And
Department of Mechanical Engineering, College of Engineering,
National Chiao Tung University, Taiwan

Preamble:

In order to further strengthen the co-operation between the two parties we hereby agree to establish the following reciprocal student exchange program based upon principles of mutual benefit.

ARTICLE 1 Number of students and field of study

Each year during the term of this agreement, each party may exchange up to 2 undergraduate or postgraduate students for one academic year of study at the host university. Two students for one semester of study is equivalent to one student for an academic year. The number of students may be modified from time to time by mutual agreement. It is understood that a balance in number of students exchanged shall be sought over a five-year period.

ARTICLE 2 Enrollment and duration of stay

Participating students under the terms of this agreement shall be enrolled as non-degree students at the host university. The duration of the students' stay shall not exceed 12 months and not be below one semester.

ARTICLE 3 Tuition and academic fees

Students participating in this exchange shall be exempt from paying tuition fee only to the host university. The host university will not be liable for travel, living, healthcare, insurance or other expenses incurred by the students. In addition, students shall pay any fees required of them by their home university in order to participate in the program.

ARTICLE 4 Language proficiency

Each party will in its selection procedure ensure that their students have adequate language proficiency to conduct studies at the host institution depending on the language the subjects are taught in.

ARTICLE 5 Admission criteria and the host university's right of rejection

Participating students seeking admission to the host university under the terms of this agreement shall meet the admission requirements of the host university. Each party reserves the right to reject candidates, in which case further candidates may be proposed. The parties will provide each other with adequate information on the performance of participating students.

ARTICLE 6 Rules and privileges

Students participating under the terms of this agreement shall be subject to the rules and regulations of the host university. They will also have the rights and privileges enjoyed by other full-time students at the host university, while they are on the exchange.

ARTICLE 7 Accommodation

Each party shall make every reasonable effort to assist students participating under the terms of this agreement in finding suitable accommodation. The payment of such housing together with the payment for all travel, medical insurance and subsistence cost shall be the responsibility of the individual students participating in the program and neither party shall be held liable for such charges. Theselected students shall satisfy the home university that they have adequate funds for transportation to and from the home university and for subsistence during their stay.

ARTICLE 8 Activities for foreign students

Students participating under the terms of this exchange agreement shall be entitled to participate in any introductory courses or programs that may customarily be arranged for foreign students at the host university.

ARTICLE 9 Record and credits

Each party shall provide a record of subjects taken and grades received by each exchange student. Credit for subjects taken will be transferred at the discretion of the home university.

ARTICLE 10 Documents and certifications

Each exchange student is responsible for obtaining a visa and other related documents required for study at the host university. The host university shall provide incoming exchange students with any university certifications required to obtain a student visa for the full period of the exchange.

ARTICLE 11 Modification of agreement

This agreement may be modified by mutual written consent at any time.

ARTICLE 12 Duration, renewal and termination

The agreement shall take effect from the last signature for a period of five (5) years. Eitherpartymay, by notice in writing of no less than 6 months, terminate this agreement. However, students who have commenced at either partybeforethe date of termination may complete their courses of study.

On behalf of

Vel Tech Rangarajan Dr.Sagunthala R&D
Institute of Institute of Science and
Technology

.....
Dr.S.Sivaperumal

Director - International Relations



On behalf of

National Chiao Tung University
Department of Mechanical Engineering

.....
Prof. Tsung-Lin Chen

Chair

Chair

Date: Sep. 29, 2018

Date: Sep. 11, 2018



Vel Tech

Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. in 1983 of UGC Act, 1956)

National Chiao Tung University (NCTU) - Dept. of Mechanical Engineering, Taiwan

Name of the Research Institute/University/ Organization	Country	Duration of the Agreement	Academic Year	Date of Signing	Date of Expiry	Purpose/Activities
National Chiao Tung University (NCTU) - Dept. of Mechanical Engineering	Taiwan	5 Years	2018-19	22.09.2018	21.09.2023	Establishing reciprocal student exchange in Department of Mechanical Engineering at NCTU and School of Mechanical and Construction at Vel Tech

Actual Activities with National Chiao Tung University (NCTU) - Dept. of Mechanical Engineering, Taiwan	
A.Y. 2017-18	Faculty Mobility (Incoming - Short Courses) - 1


MoU Coordinator



Dean - International Relations

Dr. P. Suresh
Dean - International Relations

Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. in 1983 of UGC Act, 1956)



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

School of Mechanical & Construction
Department of Mechanical Engineering

Specialized one credit course on
“Fundamentals and applications of composite materials”
(1157ME921)

by

Prof. Dr. Tai-Yan Kam
National Chiao Tung University, Taiwan



國立交通大學
National Chiao Tung University

Held on

Date: March 11 to 17, 2018

CV of Dr. Tai-Yan Kam



Education:

Ph. D., 1982, Civil Engineering Department (Structural Engineering and Mechanics), Northwestern University, Evanston, USA

Experience:

1. Structural Engineer (Designed foundation of high-rise tower) , 1977, Gammon Limited, Hong Kong
2. Nuclear Power Plant Engineer (Designed piping system), 1979, Engineering Mechanics Division, Stone & Webster Corp., NY, USA
3. Research Associate, 1981~1982, Civil Engineering Department, University of Washington, Seattle, USA
4. Associate Professor, 1982~1986, Mechanical Engineering Department, National Chiao Tung University, Hsin Chu, Taiwan
5. Professor, 1986~Present, Mechanical Engineering Department, National Chiao Tung University, Hsin Chu, Taiwan
6. Chairman, 1987~1989, Mechanical Engineering Department, National Chiao Tung University, Hsin Chu, Taiwan
7. Guest Professor, 1990, Mechanical Engineering Department, University of Pretoria, South Africa
8. Dean, 1994~2000, College of Engineering, National Chiao Tung University, Hsin Chu, Taiwan
9. Consultant (Designed composite structures of IDF fighter plane), 1984~1986, Aerospace Research Center, Chung Shan Institute of Technology (Ministry of Defense), Taiwan
10. Consultant (Established missile reliability engineering program), 1988~1989,

Quality Assurance Center, Chung Shan Institute of Technology (Ministry of Defense), Taiwan

11. Consultant (Analyzed aircraft reliability), 1992~1993, Aerospace Research Center, Industrial Technology Research Institute of Taiwan (Ministry of Economics), Taiwan
12. Consultant (Designed machine reliability), 2002~2003, Precision Machine Research Center, Taiwan
13. Vice Chairman and CTO (Designed and manufactured audio Systems), 2001~2006, Neosonica Technologies Co., Taiwan
14. CTO (Developed composite flat-panel Speakers), 2008~2012, Kaudio Technologies Co., Taiwan

Honor:

2011, Gold Prize Award, International Invention Fair, Seoul, Korea.

2012, Gold Prize Award, International Invention Fair, Taipei, Taiwan.

2013, Gold Prize Award, Archimedes International Invention Fair, Moscow, Russia.

2013, Gold Prize Award, International Invention Fair, Malaysia.

2003, National Invention Award, Taiwan.

2002, Excellent Product Award, Taiwan.

1990~Present, International Scientific Advisory Committee member of many international conferences.

2010~Present, Associate Editor, Editorial Board of ISRN Applied

Mathematics, Hindawi Publishing Corporation.

2013~Present, Associate Editor, International Scholarly Research Notices,

Hindawi Publishing Corporation.

2013, Guest Editor, Procedia Engineering Journal, Vol. 67, Elsevier.

2014~Present, Associate Editor, Journal of Modern Mechanical Engineering and Technology, Avanti Publishers.

2015~Present, Associate Editor, International Journal of Aerospace System

Engineering, The Korean Society of Aerospace System Engineering.

Delivered invited paper at international conferences (to name a few):

- A. 2001, International Conference on Composites Engineering, Spain.
- B. 2003, International Conference on computational Method in Material Characterization, Santa Fe, U.S.A.
- C. 2000, International Conference on computer Method in Composite Materials and Structures, Bologna, Italy.
- D. 2006, Keynote speech, International Conference on Composites and Nano Engineering, Kungming, China.
- E. 2007, International INCCOM-6 Conf. on Future Trends in Composite Materials and Processing, Kanpur, India.
- F. 2010, The 12th East-Asia-Pacific Conference on Structural Engineering and Construction, Hong Kong.
- G. 2016. Keynote lecture, Asian Joint Symposium on Aerospace Engineering 2016, Jeju Island, Korea.

Expertise:

- 1. Vibration and acoustics
Development of composite flat-panel sound radiators used in consumer electronics.
- 2. Composite materials and structures
Development of advanced composite structures.
- 3. Fracture mechanics and failure analysis
Development of practical methods for failure mode and progressive failure analyses of mechanical and structural systems.
- 4. Nondestructive evaluation and reliability engineering
Structural damage identification and lifetime reliability assessment of structures considering multiple failure modes.
- 5. Condition and health monitoring of wind power system
Development of methods for remote condition and structural health monitoring of wind turbines.

Publication and Patent:

- 1. Over 80 research papers published in prestigious SCI International Journals; over 150 technical papers presented in conferences.
- 2. Over 40 patents worldwide

Fundamentals and Applications of Composite Materials

Instructor: Prof. T Y Kam

Contents:

A. Fundamentals

1. Introduction (2 hr)
2. Lamina Stress-Strain Relationships (6 hrs)
3. Effective Moduli of a Continuous Fiber-Reinforced Lamina (2 hrs)
4. Strength of a Continuous Fiber-Reinforced Lamina (3 hrs)
5. Analysis of Laminates (6 hrs)
6. Analysis of Composite Structural Members (5 hrs)
7. Mechanical Testing of Composites (2 hrs)

B. Applications of Composite Materials

1. Development of Composite Golf Shaft
 - 1.1 Fabrication of Composite Golf Shaft (2 hrs)
 - 1.2 Finite Element Analysis of Golf Shaft (2 hrs)
 - 1.3 Testing of Composite Golf Shaft (2 hrs)
2. Development of Composite Wind Blade
 - 2.1 Fabrication of Composite Wind Blade (2 hrs)
 - 2.2 Finite Element Analysis of Composite Wind Blade (2 hrs)
 - 2.3 Testing of Composite Wind Blade (2 hrs)

C. Final Exam (2 hrs)

Reference:

R. F. Gibson, Principles of composite material mechanics, 3rd Ed. CRC Press, 2012.

Grading:

4 HW assignments@ 15 points = 60 points

Final Exam 40 points

DATE 4324
23/10/17

DINT/10-17/012

IR224

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

Office of International Programmes
Visiting Professor Programmes

Details of Professor & Course:

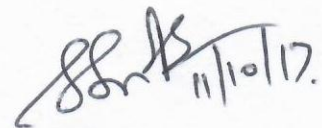
Name of the Professor	Prof. Tai-Yan Kam (Profile Attached)
University & Country	National Chiao Tung University, Taiwan /
Title of the Course	Fundamentals and applications of composite materials ✓
Department	Mechanical Engineering /
Dates of the Course	March 11 to 17, 2018.
Total No. of Hours	20
No. of Credits	1
Course Contents	List Attached

Prepared by:



Coordinator – Office of Intl. Pgms

Forwarded by:

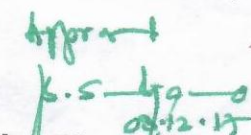
 11/10/17

Director – Office of Intl. Pgms

 HoD

 Dean

 Director (Academic)

 Vice Chancellor

SNo	Stu_Id	Stu_Name	Stu_Branch	Stu_Test_Sub jectCode	Stu_Test_SubjectName	Stu_Subject_ PassFail	Stu_Grade
1	VTU5997	AKHIL S NAIR	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
2	VTU6008	METLA SAI BHAVANI SRAVAN	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
3	VTU6043	DESAM ASHOK REDDY	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
4	VTU6296	LANJAPALLI VEERA VENKATA KRISHNA	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
5	VTU6457	SANJAY KUMAR YADAV	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
6	VtU6552	AZHAR AHMED	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
7	VtU6581	BODDEDA SURESH RATNA KUMAR	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
8	VtU6635	TAMARANA SATYANARAYANA	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
9	VTU6638	BALU SRIRAMULA REDDY	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	RA	RA
10	VtU6641	CHANDRA PAL SINGH SHEKHAWAT	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
11	VtU6679	SANDIPAN ROY	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
12	VtU6698	VIVEK VICTOR DUNG DUNG	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
13	VtU6708	AMIT SINGH	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B

14	VTU6117	VENATI SAI CHARAN	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
15	VTU6121	ARJUN RAJ	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
16	VTU6205	AKASH PANDEY	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
17	VTU6237	VIKAS YADAV	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
18	VTU6287	GANGIREDDY CHARAN TEJA REDDY	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
19	VTU5896	BALAKRISHNA THARUNPILLAI	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
20	VTU5929	SANGAMUREDDI KISHORE NAIDU	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
21	VTU5966	KULKARNI ADITYA MILIND	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
22	VTU5971	PRATIM PARAL	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B
23	VTU8239	DEEPAK KUMAR CHAUBEY	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
24	VTU8344	TARUN KUMAR	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	A
25	VTU8349	KUSHAL KUMAR SARKAR	MECHANICAL	1157ME921	Fundamentals and Applications of Composite	Pass	B



Vel Tech

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

Our Ref. No: 2018/VF 28	Your Ref. No:
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Submitted for the Approval:

Name of the Professor: Prof. Tai Yan Kam
University & Country : National Chiao Tung University (NCTU), Taiwan
Course Titles : Fundamentals and Applications of Composite Materials
Department : Mechanical Engineering
Students : 2015-2019, 32 Students
Program date : 19th to 23rd March, 2018

Sl.No	Description	Amount in INR	Amount in ~~NTD~~ TWD
1	Course Honorarium (Rs.3000 * 20 Hrs) (Net Amount & Tax Free)	60000	26844
2	Flight ticket (Reimbursement, Bill Enclosed) (1 NTD = 2.1446 INR as on 5 th January, 2018)	37415	17446
3	Visa processing Charges (1 NTD = 2.235 as on 9 th March, 2018) (To be reimbursed)	6705	3000
Total		104120	47290

(Rupees One Lakh four thousand one hundred and twenty only)

In this regard, I request your approval for transferring the amount in ~~INR~~ TWD to the following Account,

Name : TAI YAN KAM
Account No: 020-53-00574-6
Bank name: Mega International Commercial Bank
Branch : Hsin Chu Science Park
SWIFT Code: ICBCTWTP020

Total = 95566
TDS 20.6% = 15566
60000

Thank You,

S. Sivaperumal
Director International Relations

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

Dt Recd	Name	Sign
Dt Entd	Name	Sign
Dt Verified	Name	Sign
Dt of Filing	Name	Sign