



ARUNAI ENGINEERING COLLEGE

MATHUR, TIRUVANNAMALAI - 606 603

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Tel : 04175 - 237419,237739 Fax : 04175 - 237789

Ref: AEC/Esst./SSS/07-08/235

Date:08.01.2008.

SERVICE CERTIFICATE

This is to certify that Mr. **K. MUTHUKUMARAN** has been working in our Institution as Lecturer in the Department of Computer Science Engineering since 19th June 2007 to 8th January 2008.



V. J. *Chandrasekhar*

PRINCIPAL

Principal

Arunai Engineering College,
Tiruvannamalai - 606 603.



CU/REG/CERT

January 19, 2012

EXPERIENCE CERTIFICATE

This is to certify that Mr. Muthukumaran Kasinathan R/o Poovanipattu, Anikudichan, Tamil Nadu- 621803 served in the Computer Science & Engineering Department of the Chitkara University.

His service record with the University is as follows:

Date of joining: April 16, 2009

Date of relieving: January 19, 2012

Designation at the time of relieving: Assistant Professor

We wish good luck for his bright future.


Assistant Registrar

University Campus
Pinjore - Barotiwala Highway (NH-21A)
Himachal Pradesh 174 103, T +91.1795.661011
Administrative Office
Saraswati Kendra, SCO 160 - 161
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PC/ID NO 2011PHXF0415H

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE
PILANI (RAJASTHAN) INDIA
PROVISIONAL CERTIFICATE

This is to certify that

MUTHUKUMARAN K

has fulfilled the requirements of graduation and has become eligible for the award of the degree

Ph.D.

during **FIRST SEMESTER 2017-2018**

Thesis Title:

"Prediction and Probability Distribution of Defects in Software Systems"

PILANI

Dated 03-Mar-2018


REGISTRAR

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI (RAJASTHAN) INDIA
TRANSCRIPT**

ID NO 2011PHXF0415H

NAME NUTHUKUMARAN K

Degree(s) Completed:
Ph.D.

CGPA : N.A.

COURSE NO	COURSE TITLE	UNITS	GRADE
SECOND SEMESTER 2011-2012	TEACHING PRACTICE I C791T PH D SEMINAR C797T	1 2	ABOVE AVG GOOD CGPA... 0.00
FIRST SEMESTER 2012-2013	TEACHING PRACTICE II C792T PH D SEMINAR C797T PH D THESIS C799T	1 2 10	ABOVE AVG GOOD S CGPA... 0.00
SECOND SEMESTER 2012-2013	PH D SEMINAR C797T PH D THESIS C799T	2 10	GOOD S CGPA... 0.00
FIRST SEMESTER 2013-2014	PH D SEMINAR C797T PH D THESIS C799T	2 10	GOOD S CGPA... 0.00
SECOND SEMESTER 2013-2014	PH D SEMINAR C797T PH D THESIS C799T	2 10	GOOD S CGPA... 0.00
FIRST SEMESTER 2014-2015	PH D SEMINAR C797T PH D THESIS C799T	2 10	GOOD S CGPA... 0.00
SECOND SEMESTER 2014-2015	PH D SEMINAR C797T PH D THESIS C799T	2 10	GOOD S CGPA... 0.00
FIRST SEMESTER 2015-2016	PH D SEMINAR C797T PH D THESIS C799T	1 10	GOOD S CGPA... 0.00
SECOND SEMESTER 2015-2016	PH D SEMINAR C797T PH D THESIS C799T	1 10	GOOD S CGPA... 0.00
FIRST SEMESTER 2016-2017	PH D SEMINAR C797T PH D THESIS C799T	1 10	GOOD S CGPA... 0.00
SECOND SEMESTER 2016-2017	PH D SEMINAR C797T PH D THESIS C799T	1 10	GOOD ACCEPTABLE CGPA... 0.00

B. L. A.
REGISTRAR

(Continued)

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI (RAJASTHAN) INDIA
TRANSCRIPT

ID NO 2011PHXF0415H

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NAME MUTHUKUMARAN K

SUMMARY

Admitted in: SECOND SEMESTER 2011-2012
Last Registered: SECOND SEMESTER 2016-2017

Units Used in CGPA: 0
(This includes only courses with letter grades, excluding repetitions)
CGPA N.A.

Degree(s) Completed:
Ph.D.

Fulfilled the academic requirements of graduation and became eligible for the award of the degree during FIRST SEMESTER 2017-2018

Note: This programme has been conducted by BITS Pilani at its Hyderabad Campus, Hyderabad, India.

Passed Ph.D. Qualifying Examination on : April, 2012
Foreign Language Requirement : Exempted
Teaching Practice I : Fulfilled
Teaching Practice II : Fulfilled
Thesis Submitted in : SECOND SEMESTER 2016-2017
Ph.D. Viva held on : 06-JAN-2018
Thesis Units Completed : 100


Thesis Title:

"Prediction and Probability Distribution of Defects in Software Systems"

Final Thesis Grade : ACCEPTABLE

Date of approval by the Examination Committee: 03-MAR-2018

Date of Issue: 03-MAR-2018


REGISTRAR

Birla Institute of Technology and Science Pilani, (Rajasthan) India

- This transcript contains complete record of academic performance of the student given in a chronological order. For details the Academic Regulations as well as the Bulletin of the institute should be consulted.
- The medium of instruction is English.
- The academic year consists of two semesters and a summer term when required. The courses and the grades along with units are shown against each semester/term in which the student registered.

4. Evaluation:

- (a) The performance in most courses is spelt out in terms of letter grades A, A-, B, B-, C, C-, D, E. Each letter grade has a qualitative meaning and a grade point value as given below:

Letter Grade*	A	A-	B	B-	C	C-	D	E
Qualitative Meaning	Excellent	Very Good	Good	Above Average	Fair/Average	Below Average	Poor	Exposed
Grade Point	10	9	8	7	6	5	4	2

*Note : Among the letter grades mentioned above, the grades A-, B- and C- were introduced with effect from First Semester 2011-2012.

- (b) In some courses, descriptive non-letter grades (Excellent; Good; Fair; Poor; Acceptable; Unacceptable; Satisfactory(S); Unsatisfactory(U); Above Average; Average; Below Average; Outstanding; Very Good; Continuing) are awarded which carry no grade point.

5. CGPA:

The up-to date overall performance is reported by the Cumulative Grade Point Average (CGPA), which is a weighted average calculated as below:

$$CGPA = (u_1g_1 + u_2g_2 + u_3g_3 + \dots) / (u_1 + u_2 + u_3 + \dots)$$

where u_1, u_2, u_3, \dots denote units associated with the courses taken by the student and g_1, g_2, g_3, \dots denote grade points of the letter grades awarded in the respective courses. Whenever a student repeats a course and gets a new letter grade the new grade replaces the earlier grade in the calculation of the CGPA.

6. The other symbols & Reports used in the transcript are:

AU	-	Audit	XR	-	Previous grade 'X' repeated
DP	-	Discontinued from the Programme	RC	-	Registration Cancelled
EL	-	Elective	RRA	-	Required to Register Again
GA	-	Grade Awaited	S	-	Satisfactory
I	-	Incomplete	U	-	Unsatisfactory
NC	-	Not Cleared	W	-	Withdrawn
TGA	-	Thesis Grade Awaited	NA	-	Not Applicable
DEL	-	Discipline Elective	HEL	-	Humanities Elective

7. Optional elective (OE) is not a required component but if it is taken, the letter grade obtained is included in the CGPA. If the student is reported as NC in any one of the courses taken in this category, no further action is necessary.

8. Flexibilities:

The system permits many academic and other flexibilities like : (a) Admission with marginal deficiency. (Additional remedial courses are prescribed, and when necessary programme duration is extended); (b) Admission with advanced standing (The courses for which exemption was given are listed in the transcript; such courses are not included in the CGPA. The CGPA and division, if applicable are awarded on the basis of only courses taken in the institute); (c) Transfer from one programme to another, before the completion of the first. (The accumulated units and CGPA in the previous programme are carried over as the input to the new programme); (d) working concurrently for two degrees out to the integrated first degree programmes (dual degree scheme). The requirements for both the degrees in the dual degree scheme are concurrently met. Consequently, the CGPA and the division awarded for the two degrees would be the same (e) Each programme in the first degree level or higher degree level offers a choice between Practice School and Thesis/Dissertation streams.

9. Academic Counselling :

- (a) The educational philosophy interlinks and at the same time distinguishes between the performance of a student in a single course and his overall cumulative performance. His progress and performance is monitored at the end of every semester/term by noting whether (i) he has secured more than one E grade in that semester/terms; (ii) he has obtained a CGPA less than 4.50 in case of integrated first degree programme and less than 5.50 in case of higher degree programme upto that semester/term; (iii) he has spent more than 50% extra time than what is prescribed for him up to that semester/terms in his programme.

- (b) Whenever a student's performance comes under the clauses (i), (ii) or (iii) in (a) above, the student comes under the purview of Academic Counselling Board (ACB) which would counsel him, temporarily restrict his options, may require him to transfer to another suitable programme or leave the institute if he is unable to meet the probationary conditions laid down by it.

10. Eligibility Requirements :

A student has to obtain a minimum CGPA of 4.50 in case of integrated first degree programmes, a minimum CGPA of 5.50 in case of higher degree programmes and a minimum CGPA of 5.50 wherever applicable, in case of Ph.D. programmes to be eligible for the degree.

11. Along gap between the last semester of registration and the semester in which the student becomes eligible for the degree, may be due to delayed award of a grade because of late submission of some components of evaluation in a course/dissertation/thesis by the student.

12. Division : It is a classification based on CGPA as follows :

Distinction	:	CGPA 9.00 or more
I Division	:	CGPA 7.00 or more but less than 9.00
II Division	:	CGPA 4.50 or more but less than 7.00

(No division is awarded for diploma, higher degrees or Ph.D. programmes)