KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A" Grade

Anand Nagar, Krishnankoil - 626126, Srivilliputtur (via), Virudhunagar District, Tamilnadu.

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:07-07-2021

Department	COMPUTER SCIENCE AND ENGINEERING	Application No.	202110157
Area of Research	BIOMEDICAL SIGNAL PROCESSING	Research Mode	FULL TIME

Name :GAUTAM AMIYA

Date of Birth / Age :10-09-1989 / 31 Years

Gender :MALE

Category :OC

e-Mail ID :gautam.amiya@gmail.com

Mobile :+919003852131

Father's/Husband's Name	SHASHIDHAR NARAYAN JHA	Father's/Husband's Occupation	RETIRED PROFESSOR
Family Income	1500000 INR	Residental Type	URBAN
Birth Place	DARBHANGA	Mother Tongue	MAITHILI
Religion	HINDU	Martial Status	SINGLE
Aadhaar No.	535737802328	PAN No.	AMKPA4074C
Physically Challenged	NO	Type of Disability	-

Address for Communication:	Permenant Address:
C/O PROFESSOR S. N. JHA BELA GARDEN DARBHANGA DARBHANGA DISTRICT BIHAR INDIA Pin-846004	C/O PROFESSOR S.N. JHA BELA GARDEN DARBHANGA DARBHANGA DISTRICT BIHAR INDIA Pin-846004

Qualification

Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
XII	PHYSICSCHEMISTRYMATHSSANSKRITENGLISH	CBSE BOARD/ROSE PUBLIC SCHOOL LALBAGH DARBHANGA BIHAR	2007	59.4%	SECOND	REGULAR
B.E	CSE	VTU BELGAUM KARNATAKA/SRI VENKATESHWARA COLLEGE OF ENGINEERING BANGALORE KARNATAKA	2013	66.66%	FIRST	REGULAR
MTECH	CSE	PRIVATE DEEMED UNIVERSITY VIT VELLORE TAMILNADU	2017	7.4 CGPA	FIRST	REGULAR

Experience

Organization	Designation	Experience From	Experience TO	Work Nature

Payment Details

Transaction ID	Reference	Date of transaction	Amount	Status
202110157_210707215159	VHMP0097251275	07-07-2021	600	SUCCESS

The Estimation of Bone Mineral Density (BMD) for the Detection of Osteoporosis in Elderly Women using clinically practised DEXA images

Osteoporosis is a medical condition, in which the bones become brittle and fragile as a consequence of the loss of tissues. It is typically accelerated due to hormonal changes or deficiency of calcium or vitamin D. The main cause of osteoporosis is a significant drop in the estrogen levels of the body. Estrogen is the hormone that helps build and maintain bones. The primary reason for the decrease in the level of estrogen in women is menopause. That is why elderly women, in postmenopausal age, are mostly affected by osteoporosis.

Osteoporosis makes the bones of the hip, wrist and spine more prone to the risk of fracture and also cause architectural defects. The image of a healthy bone resembles a healthy honeycomb structure but the osteoporotic bone displays much larger holes and spaces in the honeycomb structure, whereas, osteopenia is a medical condition in which the mineral content of the bone undergoes reduction but less severely than in osteoporosis.

Osteoporosis is found in elederly throughout the world with all most uniform frequency. It is almost prevalence in females and poses a global concern. Resultantly, it needs meticulous investigation for the prevention and early detection as well. That is why it is imperative to find out the ways and means to have pinpointed approach for the diagnosis of the onset of osteoporosis.

Initially, various bone densitometry methods were used to evaluate the stage of osteoporosis, namely morphometric and photon absorptiometry methods, e.g., radiographic absorptiometry, radiogrammatery, Single-Photon Absorptiometry (SPA) and Dual Photon Absorptiometry (DPA) etc. In some of the cases, these were digitised, still, they suffer from one of the other infirmities. These methods were time consuming, expensive, non-economic and lacked the anticipated accuracy and precision. Finally, the investigators ushered into an era of DEXA (Dual Energy X-Ray Absorptiometry). The state-of-the-art DEXA proved to be a reliable diagnostic tool and also came into use for the detection and forecast of the risk of bone fracture in an unambiguous pathway . The DEXA uses X-Ray beams of two peak energies. It has been employed for the measurement of Bone Mineral Density (BMD), which determines the T-Score suggestive of Osteoporotic condition. The digitised DEXA image using an appropriate application of a suitable image processing algorithm is still desirable and needs extensive exploration.

Keeping in mind the aforesaid current status of literature, the objectives of the research proposal are stated here:

1)To acquire DEXA clinical dataset to analyse and quantify, the level of osteoporosis, occurring in any part of the body of elderly women

2)To create a repository/atlas of the results of the quantification of various patients affected by Osteoporosis, isosynchronously, by the use of DEXA image results.

3)To provide decision support to the orthopaedician to intensify the level of treatment /therapy for the elderly women, patients to cure osteoporosis.

Research Plan:

Semester 1	Coursework, Survey of Literature, Discussions
Semester 2	Algorithm 1 Implementation, Paper 1 Publish
Semester 3	Algorithm 2 Implementation, Paper 2 Publish
Semester 4	Algorithm 3 Implementation, Paper 3 Publish
Semester 5	Write Thesis
Semester 6	Thesis Submit

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ
VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
KARNATAKA, INDIA

Certifies that

GAUTAM AMIYA

ಬ್ಯಾಚಲರ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್

ಪದವಿಗೆ ಆಗತ್ಯವಾದ ಅರ್ಹತೆಗಳನ್ನುಳ್ಳವರೆಂದು ಪರಿಗಣಿತವಾಗಿರುವ ಕಾರಣ
ಮೇಲೆ ಕಾಣಿಸಿದ ಪದವಿಗೆ ಆವರನ್ನು ಅಂಗೀಕರಿಸಲಾಗಿದೆ.

has been duly admitted to the Degree of

Bachelor of Engineering

in recognition of the fulfilment of requirements

for the said degree

ಪರೀಕ್ಷಾ ಕ್ರಮ ಸಂಖ್ಯೆ
University Seat Number : *1VE08CS024*

ವಿಷಯ
Subject : *Computer Science & Engineering*

ಶ್ರೇಣಿ
Class : *First Class*

D 056893
13

ವಿಶ್ವವಿದ್ಯಾಲಯದ ಮುದ್ರೆಯೊಂದಿಗೆ ಕೊಡಲ್ಪಟ್ಟಿದೆ
Given under the seal of the University

ಬೆಳಗಾವಿ
Belgaum

ದಿನಾಂಕ
Date : **MAY 03, 2014**

ಕುಲಪತಿ
VICE CHANCELLOR

15MCS0022

Sl. No. 066638

VIT UNIVERSITY
(Established under section 3 of the UGC Act, 1956)

The Board of Management of the VIT University
hereby makes known that

GAUTAM AMIYA

has been admitted to the degree of

MASTER OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

he / she having been certified by duly appointed
examiners to be qualified to receive the same with
the CGPA of

7.40

at the examination held in

May-2017

Given under the seal of this university

Vice - Chancellor

Chancellor

Dated : 30-Aug-2017

Vellore - 632 014, Tamil Nadu, India

Processed by	V. Barathi Signature	31/8/17 Date
Read by	S. Sally Signature	31/8/17 Date
Verified by	Signature	21/8/17 Date

Sub. Code	SUBJECT	Th.	P.	Total	Marks in Words	Grade
101	ENGLISH COMM.	078	XXX	078	SEVENTY EIGHT	A2
122	COMM. SANSKRIT	097	XXX	097	NINETY SEVEN	A2
041	MATHEMATICS	089	XXX	089	EIGHTY NINE	A2
086	SCIENCE & TECH.	060	025	085	EIGHTY FIVE	A2
087	SOCIAL SCIENCE	067	XXX	067	SIXTY SEVEN	B2

Result: PASS

Code	SUBJECT	Th.	P.	Total	Marks in Words	Grade
301	ENGLISH CORE	074	XXX	074	SEVENTY FOUR	B1
322	SANSKRIT CORE	062	XXX	062	SIXTY TWO	B1
041	MATHEMATICS	049	XXX	049	FORTY NINE	D1
042	PHYSICS	026	030	056	FIFTY SIX	D1
043	CHEMISTRY	026	030	056	FIFTY SIX	D1
504	WORK EXPERIENCE					A1
502	PHY & HEALTH EDUCA					A1
503	GENERAL STUDIES					A1

Result: PASS

Course Code	Course Title	Course Type	Credit	Grade	Month & Year
CSE503	ADVANCED ALGORITHMIC ANALYSIS	ETL	4	D	Nov-15
CSE507	ADVANCED COMPUTER ARCHITECTURE	ETL	4	E	Nov-15
CSE509	ADVANCED OPERATING SYSTEMS	ETL	4	F	Nov-15
CSE515	ADVANCED DATABASE SYSTEMS	T	4	C	Nov-15
FRE001	COMMUNICATIVE FRENCH	T	2	A	Nov-15
MAT503	HIGHER MATHEMATICS	T	4	C	Nov-15
SET501	SCIENCE, ENGINEERING AND TECHNOLOGY PROJECT - I	L	2	S	Nov-15
STS001	SOFT SKILLS	SS	1	B	Nov-15
CSE502	ADVANCED SOFTWARE ENGINEERING	T	3	E	May-16
CSE504	ADVANCED COMPUTER GRAPHICS	T	3	F	May-16
CSE506	WEB SERVICES	ETL	4	F	May-16
CSE510	DISTRIBUTED SYSTEMS	T	3	E	May-16
CSE512	ADVANCED COMPUTER NETWORKS	ETL	4	E	May-16
CSE514	PERVASIVE COMPUTING	ETL	4	C	May-16
CSE516	PARALLEL ALGORITHMS	T	3	C	May-16
SET502	SCIENCE, ENGINEERING AND TECHNOLOGY PROJECT - II	L	2	A	May-16
STS002	SOFT SKILLS	SS	1	B	May-16
CSE509	ADVANCED OPERATING SYSTEMS	ETL	4	C	Jun-16
CSE534	DATA WAREHOUSING AND DATA MINING	T	3	B	Jul-16
CSE535	CLOUD BASED COMPUTING	T	3	D	Jul-16
CSE601	KNOWLEDGE REPRESENTATION AND REASONING	T	3	B	Jul-16
CSE504	ADVANCED COMPUTER GRAPHICS	T	3	C	Dec-16
CSE506	WEB SERVICES	ETL	4	B	Dec-16
CSE698	MASTERS THESIS	L	16	S	May-17

*** END OF STATEMENT ***

Number of Credits Registered: 77   Number of Credits Earned: 77   Cumulative Grade Point Average (CGPA): 7.40

Date: 11-Jul-2017

Verified by   Controller of Examinations

Abbreviations :

Course Type : T - Theory / L - Laboratory / PJT - Project / ECA - Extra-Curricular Activity / SS - Soft Skill /
ETL - Embedded Theory and Laboratory / ETP - Embedded Theory and Project /
ELP - Embedded Laboratory and Project / ETLP - Embedded Theory, Laboratory and Project

GPA : Grade Point Average

CGPA : Cumulative Grade Point Average

Grading System :

A letter grade on ten point scale is awarded to a student in a course based on the total marks obtained from Continuous Assessment Tests and Final Assessment Test.

Letter Grade	S	A	B	C	D	E	F	N
Grade Point	10	9	8	7	6	5	0	0

F Grade	Failed in a Course
N Grade	Absent / Debarred in Final Assessment Test / Course Incomplete
P Grade	Passed in a Pass / Fail Course
U Grade	Successfully completed an Audit Course
W Grade	Course Withdrawn

Grades S, A, B, C, D, E, P and U indicate successful completion of the Course

CGPA Calculation:

CGPA is obtained by dividing the sum of product of Grade Point (GP) earned and Credits (C) of a registered course for 'n' number of courses by total number of credits registered.

$$\frac{\sum_{i=1}^{n} C_i \times GP_i}{\sum_{i=1}^{n} C_i}$$

Pass Course (P Grade), Audit Course (U Grade) and Withdrawn Course (W Grade) are not counted for the calculation of GPA or CGPA.

A minimum CGPA of 5.00 is required for the award of degree.

VIT®
UNIVERSITY
(Estd. u/s 3 of UGC Act 1956)

Transfer Certificate

Serial No. 1700005549 / 2017

1.	Name of the Student in full (in BLOCK LETTERS)	:	MR. GAUTAM AMIYA
2.	Registration No	:	15MCS0022
3.	Name of the Father / Guardian	:	MR. SHASHIDHAR NARAYAN JHA
4.	Date of Birth as per Admission Register (in Figures and words)	:	10.09.1989 (Tenth September Nineteen Eighty Nine)
5.	Nationality	:	INDIAN
6.	Religion / Community / Caste	:	HINDU
7.	Sex	:	MALE
8.	Date of Admission to the Institute	:	26.06.2015
9.	Date of Leaving the Institute	:	31.05.2017
10.	Reason for Leaving the Institute	:	COMPLETED THE M.TECH DEGREE COURSE
11.	Course in which the student was studying at the time of leaving	:	M.Tech. Computer Science and Engineering
12.	Whether qualified for promotion to higher class or not? (with details wherever necessary)	:	REFER THE UNIVERSITY GRADE CARDS
13.	Medium of Instruction	:	ENGLISH
14.	Whether the student has paid all the fees due to the Institute?	:	YES
15.	Date on which application for Transfer Certificate was made	:	31.05.2017
16.	Date of issue of Transfer Certificate	:	31.05.2017
17.	Character and Conduct of the Student	:	GOOD

Date : 31.05.2017

REGISTRAR

No.4452/Estt./2019/B1　　　　　　　　　Date: 22-05-2019

CERTIFICATE

This is to certify that **Mr. Gautam Amiya** has worked as Temporary Faculty in the Department of Computer Science and Engineering of this Institute on Semester Basis and on Consolidated Pay as follows:

　　18-07-2018 to 07-12-2018　---　Rs.40,000/- p.m.

　　24-12-2018 to 10-05-2019　---　Rs.40,000/- p.m.

During the services in this Institution his performance was good.

REGISTRAR

To,

Mr. Gautam Amiya,
Temporary Faculty (Relieved),
Department of Computer Science & Engg.,
N.I.T.K. - Surathkal.

आयकर विभाग भारत सरकार
INCOME TAX DEPARTMENT GOVT. OF INDIA

GAUTAM AMIYA

SHASHIDHAR NARAYAN JHA

10/09/1989
Permanent Account Number

AMKPA4074C

Gautam Amiya
Signature

31052008

Gautam Amiya
7/ July/ 2021
Bangalore

UHN0361220

ವಿಳಾಸ / Address :

#1013,ಜನಪ್ರಿಯ ಲೇಕ್ ವ್ಯೂ 2,
ಕೋಡಿಚಿಕ್ಕನಹಳ್ಳಿ,
ಬೆಂಗಳೂರು - 560076.
#1013,Janapriya Lake View 2,
Kodichikkanahalli,
Bangalore - 560076.
Date: 15/04/2013

175 - ಬೊಮ್ಮನಹಳ್ಳಿ ಪಧಾನ ಸಭಾ ಕ್ಷೇತ್ರದ ಮತದಾರರ
ನೋಂದಣಾಧಿಕಾರಿಯವರ ಅಧಿಕೃತ ಸಹಿ
Facsimile Signature of Electoral Registration
Officer 175 - Bommanahalli Assembly
Constituency
ವಿಳಾಸ ಬದಲಾವಣೆಯಾಗಿದ_ರೆ_, ಬದಲಾದ ವಿಳಾಸದ ಮತದಾರರ
ಪಟ್ಟಿಯಲ್ಲಿ_ ನಿಮ್ಮ ಹೆಸರನ್ನು ಸೇರಿಸಲು ಸೂಕ್ತ ನಮೂನೆಯಲ್ಲಿ_ ಈ
ಗುರುತಿನ ಚೀಟಿಯ ಸಂಖ್ಯೆಯನ್ನು ನಮೂದಿಸಿ.
In case of change in address, mention this Card
No. in the relevant form for including your name in
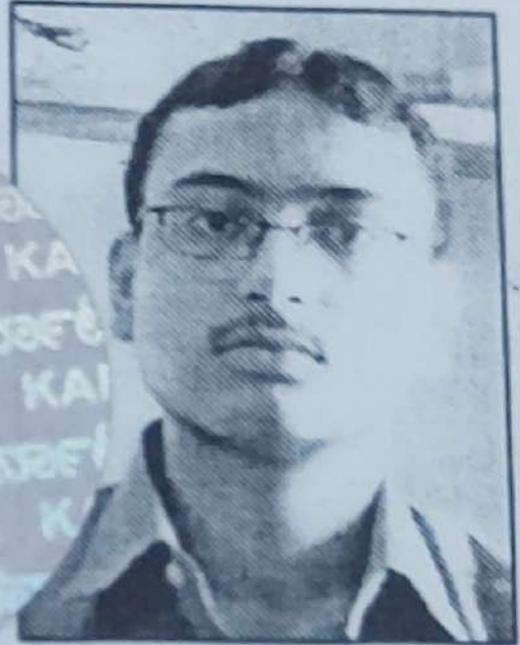the roll at the changed address.
099/0562

UHN0361220

ಮತದಾರರ ಹೆಸರು : ಗೌತಮ್ ಅಮಿಯ

Elector's Name : Gautam Amiya

ತಂದೆಯ ಹೆಸರು : ಶಶಿಧರ್ ನಾರಾಯಣ್

Father's Name : Shashidhar Narayan

ಲಿಂಗ / Sex : ಪುರುಷ/ Male

ಜನ್ಮದಿನಾಂಕ/Date of Birth : 10/09/1989