



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

## APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:21-12-2020

Department	COMPUTER SCIENCE AND ENGINEERING	Application No.	202020143
Area of Research	COMPUTING AND AI	Research Mode	PART TIME

**Name** :NANDINI J.V  
**Date of Birth / Age** :09-12-1977 / 43 Years  
**Gender** :FEMALE  
**Category** :OC  
**e-Mail ID** :nanz.jv@gmail.com  
**Mobile** :4704947760



*Nandini*

<b>Father's/Husband's Name</b>	ARUN N KUMAR	<b>Father's/Husband's Occupation</b>	VICE PRESIDENT INNOVATION
<b>Family Income</b>	NA	<b>Residential Type</b>	URBAN
<b>Birth Place</b>	KOLAR	<b>Mother Tongue</b>	KANNADA
<b>Religion</b>	HINDU	<b>Martial Status</b>	MARRIED
<b>Aadhaar No.</b>	737014201601	<b>PAN No.</b>	AFGPJ4220E
<b>Physically Challenged</b>	NO	<b>Type of Disability</b>	-
<b>Address for Communication:</b> UNIT 1208 111 ST CLAIR AVE W, 1208 TORONTO ONTARIO DISTRICT ONTARIO CANADA Pin-M4V1N5		<b>Permenant Address:</b> 82/A 11TH CROSS, MAHALAKSHMI LAYOUT BANGALORE BANGALORE DISTRICT KARNATAKA INDIA Pin-56086	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
MASTER OF SCIENCE	INFORMATION TECHNOLOGY	KUVEMPU UNIVERSITY	2007	C	2ND CLASS	DISTANCE
BACHELOR OF SCIENCE	COMPUTER SCIENCE	KARNATAKA STATE OPEN UNIVERSITY	2006	B	1ST CLASS	DISTANCE

Experience				
Organization	Designation	Experience From	Experience TO	Work Nature

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
202020143_201225013819	VICI9592305103	25-12-2020	600	SUCCESS

# Methods for measuring and recommending efficiencies in preventive health care powered by AI

By Nandini J.V

## Summary

The concept of health system efficiency may seem beguilingly simple, represented at its simplest as a ratio of resources consumed (health system inputs) to some measure of the valued health system outputs that they create. In effect, this creates a metric of the generic type, the so-called resource use per unit of health system output. Yet, making this straightforward notion operational can give rise to considerable complexity. Within the health system as a whole, there exist a seemingly infinite set of interlinked processes that could be evaluated independently and found to be efficient or inefficient. This has given rise to a plethora of apparently disconnected indicators that give glimpses of certain aspects of inefficiency, but rarely offer a comprehensive overview.

Efficiency evaluation is one task under the broader, multidimensional approach to performance assessment and is undertaken subject to the achievement of other service goals.

Efficiency is one facet of the overall performance of health services.

Artificial intelligence (AI) aims to mimic human cognitive functions. It is bringing a paradigm shift to healthcare, powered by increasing availability of healthcare data and rapid progress of analytics techniques. We survey the current status of AI applications in healthcare and discuss its future. AI can be applied to various types of healthcare data (structured and unstructured). Popular AI techniques include machine learning methods for structured data, such as the classical support vector machine and neural network, and the modern deep learning, as well as natural language processing for unstructured data. Major disease areas that use AI tools include cancer, neurology and cardiology. We then review in more details the AI applications in stroke, in the three major areas of early detection and diagnosis, treatment, as well as outcome prediction and prognosis evaluation. We conclude with discussion about pioneer AI systems, such as IBM Watson, and hurdles for real-life deployment of AI.

## Specific Aims

Aims to provide some insight into the conceptual and methodological issues in measuring efficiency in health services. For researchers engaged in efficiency analysis, it is a précis of measurement techniques and applications. • For those who have responsibility for health expenditure decisions or policy advice, it points to the appropriate analytical tools and necessary data for measuring efficiency.

Personal issues which impacted very well drawing me to solve it.

Investigate the state of knowledge about efficiency measurement in the health sector, both in Canada and abroad; • show how features specific to health and health services affect the suitable methodology for measuring efficiency; and • subject to the use of appropriate evaluation methods, point to areas where better data and modelling are needed to enhance efficiency analysis.

## Background and Significance

The significance of AI have been extensively discussed in the medical literature. AI can use sophisticated algorithms to 'learn' features from a large volume of healthcare data, and then use the obtained insights to assist clinical practice. It can also be equipped with learning and self-correcting abilities to improve its accuracy based on feedback. An AI system can assist physicians by providing up-to-date medical information from journals, textbooks and clinical practices to inform proper patient care. In addition, an AI system can help to reduce diagnostic and therapeutic errors that are inevitable in the human clinical practice. Moreover, an AI system extracts useful information from a large patient population to assist making real-time inferences for health risk alert and health outcome prediction.

## Experimental Design and Methods

The above discussion suggests that AI devices mainly fall into two major categories. The first category includes machine learning (ML) techniques that analyse structured data such as imaging, genetic and EP data. In the medical applications, the ML procedures attempt to cluster patients' traits, or infer the probability of the disease outcomes. The second category includes natural language processing (NLP) methods that extract information from unstructured data such as clinical notes/medical journals to supplement and enrich structured medical data. The NLP procedures target at turning texts to machine-readable structured data, which can then be analysed by ML techniques.

For better presentation, the flow chart in describes the road map from clinical data generation, through NLP data enrichment and ML data analysis, to clinical decision making. We comment that the road map starts and ends with clinical activities. As powerful as AI techniques can be, they have to be motivated by clinical problems and be applied to assist clinical practice in the end.

The production process in hospital care Costs Physical inputs Physical outputs Activities  
Outcome Capital; Labour; Drugs Diagnostic tests; Surgical procedure Episode of hospital care  
Improvement in length & quality of life Patient experience E.g. average wages E.g. tests per  
histologist per month E.g. average length of stay E.g. risk adjust mortality rate E.g. cost per  
QALY Note: QALY = quality-adjusted life year.

## References

1. <https://www.pc.gov.au/research/supporting/measuring-health-services/tmeihs.pdf>
2. [https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0004/324283/Health-System-Efficiency-How-make-measurement-matter-policy-management.pdf](https://www.euro.who.int/__data/assets/pdf_file/0004/324283/Health-System-Efficiency-How-make-measurement-matter-policy-management.pdf)
3. <https://svn.bmj.com/content/2/4/230>



**ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ**  
**Kuvempu University**  
 DIRECTORATE OF DISTANCE EDUCATION

ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ ಕುಲಾಧಿಪತಿ, ಸಮಕುಲಾಧಿಪತಿ, ಕುಲಪತಿ, ವಿದ್ಯಾ ವಿಷಯಕ ಪರಿಷತ್ತು ಮತ್ತು ಸಿಂಡಿಕೇಟ್ ಸದಸ್ಯರಾದ  
 ನಾವು ಶ್ರೀ / ಶ್ರೀಮತಿ.....**ನಂದಿನಿ.ಜಿ.ವಿ.**..... ಇವರು  
 .....**062M2543** ನೋಂದಣಿ ಸಂಖ್ಯೆಯೊಂದಿಗೆ .....**ಮೇ. 2007**.....ನೇ ವರ್ಷದಲ್ಲಿ ನಡೆದ ಪರೀಕ್ಷೆಯಲ್ಲಿ  
 .....**ಸಿ**.....ದರ್ಜೆಯಲ್ಲಿ ಉತ್ತೀರ್ಣರಾಗಿರುವರೆಂದು ಪ್ರಮಾಣೀಕೃತವಾಗಿರುವುದರಿಂದ  
 ದಿನಾಂಕ.....**23ನೇ ಫೆಬ್ರವರಿ 2008**.....ರಂದು ನಡೆದ.....**ಹದಿನೆಂಟ**.....ನೇ ಘಟಿಕೋತ್ಸವದಲ್ಲಿ ಇವರನ್ನು

**ಮಾಸ್ಟರ್ ಆಫ್ ಸೈನ್ಸ್**  
**(ಇನ್‌ಫರ್ಮೇಷನ್ ಟೆಕ್ನಾಲಜಿ)**  
 ಪದವಿಗೆ ಅಂಗೀಕರಿಸಲಾಗಿದೆ.

We, the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the members of the Academic Council and Syndicate of Kuvempu University, certify that,  
 Sri/Smt.....**NANDINI J.V.**.....  
 bearing Register Number.....**062M2543**.....has been admitted to the degree of

**MASTER OF SCIENCE**  
**(INFORMATION TECHNOLOGY)**

at the **Eighteenth**.....Convocation held on.....**23<sup>rd</sup> Feb 2008**.....having passed  
 in the prescribed examination held in the year.....**May 2007**.....and placed in  
 .....**C. GRADE**.....

ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ ಮೊಹರಿನೊಂದಿಗೆ ನೀಡಿದೆ.  
*Given under the Seal of the University*

ಜ್ಞಾನ ಸಹ್ಯಾದ್ರಿ - ಶಂಕರಘಟ್ಟ  
 Jnana Sahyadri - Shankaraghatta  
 Pin Code : 577 451  
 ಕರ್ನಾಟಕ Karnataka  
 ಭಾರತ-India  
 ದಿನಾಂಕ - Date **E 2 JUL 2008**  
 Sl. No. **004554**



ಕುಲಪತಿ  
 Vice -Chancellor



ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ KUVEMPU UNIVERSITY

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ದೂರಶಿಕ್ಷಣ ನಿರ್ದೇಶನಾಲಯ



Office of the University  
JNANA SAHYADRI

IT 000237

ACADEMIC ASSESSMENT RECORD  
III SEMESTER M.Sc.(IT) EXAMINATION - NOVEMBER 2006

SHANKARAGHATTA - 577 451

Register No. 062M2543



Name : NANDINI J V

Subjects	Grade Awarded
COMPUTER NETWORKS - II Th.	C
SOFTWARE QUALITY & TESTING Th.	C
DATA WAREHOUSING & DATA MINING Th.	B
LINUX INTERNALS Th.	B
INTERNET PROGRAMMING Th.	C

OVER ALL SEMESTER GRADE

GRADE : B

PASSING CRITERIA : 40% in each Theory / Practical / Project and 40% in each Subject (including I.A.).

Grade System

Grade	Marks Range	Class	Qualitative Level
A	75% or more	Distinction	Excellent
B	60% to 74%	I Class	Very Good
C	50% to 59%	II Class	Good
D	40% to 49%	Pass	Satisfactory
F	Below 40%	Fail	Failed

- \*For the award of Overall Grade and Class for the degree of B.Sc. (IT), the cumulative performance of the candidate in 4th, 5th and 6th Semesters only is considered.
- For the award of Overall Grade and Class for the degree of M.Sc. (IT), the cumulative performance of the candidate in 3rd & 4th Semesters only.

*K. S. Kante*

Date : 30/03/2007

REGISTRAR (EVALUATION)



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ACADEMIC ASSESSMENT RECORD  
M.Sc.(IT) - BRIDGE COURSE EXAMINATION  
NOVEMBER 2006



Office of the University  
JNANA SAHYADRI  
SHANKARAGHATTA - 577 451

IT 002772

Register No. 062M2543



Name : NANDINI J V

Subjects	Grade Awarded
THEORY PAPER Th.	B
<b>OVER ALL SEMESTER GRADE</b>	
<b>GRADE : B</b>	

PASSING CRITERIA : 40% in each Theory / Practical / Project and 40% in each Subject (including I.A.).

**Grade System**

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A	75% or more	Distinction	Excellent
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- For the award of Overall Grade and Class for the degree of M.Sc. (IT), the cumulative performance of the candidate in 3rd & 4th Semesters only.

*K. S. Kante*

Date : 02/04/2007

REGISTRAR (EVALUATION)



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ACADEMIC ASSESSMENT RECORD

IV SEMESTER M.Sc.(IT) EXAMINATION - MAY 2007



Office of the University  
JNANA SAHYADRI  
SHANKARAGHATTA - 577 451

IT 004296

Register No. 062M2543



Name : NANDINI J V

Subjects	Grade Awarded
OOAD WITH UML Th.	C
DISTRIBUTED COMPUTING Th.	B
SOFT COMPUTING Th.	B
SOFTWARE PROJECT & MANAGEMENT Th.	B
PROJECT Pr.	C
Current exam III SEMESTER	C B
<b>OVER ALL SEMESTER GRADE</b>	
<b>GRADE : C</b>	

PASSING CRITERIA : 40% in each Theory / Practical / Project and 40% in each Subject (including I.A.).

Grade System

Grade	Marks Range	Class	Qualitative Level
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REGISTRAR (EVALUATION)

Date : 24/08/2007



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**Kuvempu University**  
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 .....**062M2543** ನೋಂದಣಿ ಸಂಖ್ಯೆಯೊಂದಿಗೆ .....**ಮೇ. 2007**.....ನೇ ವರ್ಷದಲ್ಲಿ ನಡೆದ ಪರೀಕ್ಷೆಯಲ್ಲಿ  
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**ಮಾಸ್ಟರ್ ಆಫ್ ಸೈನ್ಸ್**  
**(ಇನ್‌ಫರ್ಮೇಷನ್ ಟೆಕ್ನಾಲಜಿ)**  
 ಪದವಿಗೆ ಅಂಗೀಕರಿಸಲಾಗಿದೆ.

We, the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the members of the Academic Council and Syndicate of Kuvempu University, certify that, Sri/Smt.....**NANDINI J.V.**..... bearing Register Number.....**062M2543**.....has been admitted to the degree of

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*Given under the Seal of the University*

ಜ್ಞಾನ ಸಹ್ಯಾದ್ರಿ - ಶಂಕರಘಟ್ಟ  
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**ಕುಲಪತಿ**  
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Ms. Nandini J V  
#24, 22<sup>nd</sup> Main, Temple Street,  
Ayodhya Nagar, 5<sup>th</sup> Phase,  
J P Nagar,  
Bangalore - 560 078

Date: 1<sup>st</sup> January, 2003

**Subject : Appointment Letter.**

**Dear Nandini**

We are pleased to appoint you with effect from 6<sup>th</sup> Jan, 2003 as Software Testing Trainee. You will be based in Bangalore and will be reporting to Product Manager – Bangalore. You will have a responsibility for promoting WPI I(hereafter referred as Company) products in India. We hope you can add a lot of value to our activities in India and grow with the Company.

The compensation package would be divided into fixed gross salary and performance based variable incentive:

**A. Fixed Gross Salary :**

**Gross : Rs. 16,000/- Per Month**

**B. Performance Based Variable Incentive :**

The variable incentive would be in the form of ex- gratia bonus, which would be paid as decided by the company. This will be over and above the salary received for 12 months, on the basis of overall performance of WPI India. The management has the right to review this incentive structure as deemed necessary and appropriate and reserves the right to review the same. It is the prerogative of the management to grant this incentive to the individual employee.

C. You will observe the company general rules and regulations.

D. Any tax liability arising from the compensation paid to you would be to your account.

E. Company reserves the right to transfer you to any of its offices and alter responsibilities as deemed necessary.

F. You will be appraised yearly as per company procedures.

G. You will maintain the confidentiality of Company matters.

H. In case of parting with the company, one month clear notice shall be given from either side.

I. You will be on a probationary period of Six months from the date of joining and there After a letter of confirmation will be issued.

You will receive a separate letter advising your job responsibilities in detail.

We wish you All the Very Best and look forward to working with you in WPII..

With best regards,  
No. 1186,  
12th 'B' Main,  
HAL 2nd Stage,  
Indiranagar,  
Bangalore-8  
Manager - HR & Admin

आयकर विभाग

INCOME TAX DEPARTMENT



भारत सरकार

GOVT. OF INDIA

NANDINI JAYRAM  
VENKATACHALAPATHY  
VENKATACHALAPATHY JAYRAM

09/12/1977

Permanent Account Number

AFGPJ4220E

*Nandini*

Signature



03042012

DL No. : KA53 20160019602

DOI : 28/07/2016

FORM - 7

NAME : NANDINI .J .V

[See Rule 16(2)]

D.O.B : 09/12/1977

B.G. : O+

VALID TILL : 08/12/2027(NT)



**VALID THROUGHOUT INDIA**

COV: LMV 28/07/2016

CDDOI: 03-08-2016

W/o : ARUN N KUMAR

ADDRESS : # 24, 22ND MAIN TEMPLE STREET, AYDHYA  
NAGAR 5TH PHASE, J P NAGAR BANGALORE  
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