INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT

IJRCM

IJRCM

CONTENTS

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT   iii

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

http://ijrcm.org.in/

CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the areas of Computer Science & Applications; Commerce; Business; Finance; Marketing; Human Resource Management; General Management; Banking; Economics; Tourism Administration & Management; Education; Law; Library & Information Science; Defence & Strategic Studies; Electronic Science; Corporate Governance; Industrial Relations; and emerging paradigms in allied subjects like Accounting; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Rural Economics; Co-operation; Demography: Development Planning; Development Studies; Applied Economics; Development Economics; Business Economics; Monetary Policy; Public Policy Economics; Real Estate; Regional Economics; Political Science; Continuing Education; Labour Welfare; Philosophy; Psychology; Sociology; Tax Accounting; Advertising & Promotion Management; Management Information Systems (MIS); Business Law; Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labour Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; International Relations; Human Rights & Duties; Public Administration; Population Studies; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism & Hospitality; Transportation Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic; Web Design and emerging paradigms in allied subjects.

Anybody can submit the **soft copy** of unpublished novel; original; empirical and high quality **research work**/**manuscript** <mark>anytime</mark> in *M.S. Word format* after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. infoijrcm@gmail.com or online by clicking the link **online submission** as given on our website (*FOR ONLINE SUBMISSION, CLICK HERE*).

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1.   <mark>**COVERING LETTER FOR SUBMISSION**</mark>:

                                                 DATED: _____

    THE EDITOR
    IJRCM

    Subject: **SUBMISSION OF MANUSCRIPT IN THE AREA OF** _____ **.**

    (e.g. Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Education/Engineering/Mathematics/other, <mark>please specify</mark>)

    DEAR SIR/MADAM

    Please find my submission of manuscript entitled '_____' for possible publication in your journals.

    I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

    I affirm that all the authors have seen and agreed to the submitted version of the manuscript and their inclusion of names as co-authors.

    Also, if my/our manuscript is accepted, I/We agree to comply with the formalities as given on the website of the journal & you are free to publish our contribution in any of your journals.

    NAME OF CORRESPONDING AUTHOR   :
    Designation   :
    Institution/College/University with full address & Pin Code   :
    Residential address with Pin Code   :
    Mobile Number (s) with country ISD code   :
    WhatsApp or Viber is active on your above noted Mobile Number (Yes/No)   :
    Landline Number (s) with country ISD code   :
    E-mail Address   :
    Alternate E-mail Address   :
    Nationality   :

    NOTES:
        a)   The whole manuscript is required to be in **ONE MS WORD FILE** only (pdf. version is liable to be rejected without any consideration), which will start from the covering letter, inside the manuscript.
        b)   The sender is required to mention the following in the **SUBJECT COLUMN** of the mail:
        New Manuscript for Review in the area of (Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/ Engineering/Mathematics/other, please specify)
        c)   There is no need to give any text in the body of mail, except the cases where the author wishes to give any specific message w.r.t. to the manuscript.
        d)   The total size of the file containing the manuscript is required to be below **500 KB**.
        e)   Abstract alone will not be considered for review, and the author is required to submit the complete manuscript in the first instance.
        f)   The journal gives acknowledgement w.r.t. the receipt of every email and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending separate mail to the journal.
        g)   The author (s) name or details should not appear anywhere on the body of the manuscript, except the covering letter and cover page of the manuscript, in the manner as mentioned in the guidelines.

2.   <mark>**MANUSCRIPT TITLE**</mark>: The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

3.   <mark>**AUTHOR NAME (S) & AFFILIATIONS**</mark>: The author (s) **full name**, **designation**, **affiliation** (s), **address**, **mobile/landline numbers**, and **email/alternate email address** should be in italic & 11-point Calibri Font. It must be centered underneath the title.

4.   <mark>**ACKNOWLEDGMENTS**</mark>: Acknowledgements can be given to reviewers, funding institutions, etc., if any.

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

http://ijrcm.org.in/

V

5.   **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para. Abbreviations must be mentioned in full.

6.   **JEL CODE**: Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at **www.aeaweb.org/econlit/jelCodes.php**

7.   **KEYWORDS:** JEL Code must be followed by a list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.

8.   **MANUSCRIPT:** Manuscript must be in _**BRITISH ENGLISH**_ prepared on a standard A4 size _**PORTRAIT SETTING PAPER**_. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of every page. *It should be free from grammatical, spelling and punctuation errors and must be thoroughly edited.*

9.   **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.

10.   **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.

11.   **MAIN TEXT:** The main text should follow the following sequence:

INTRODUCTION
REVIEW OF LITERATURE
NEED/IMPORTANCE OF THE STUDY
STATEMENT OF THE PROBLEM
OBJECTIVES
HYPOTHESES
RESEARCH METHODOLOGY
RESULTS & DISCUSSION
FINDINGS
RECOMMENDATIONS/SUGGESTIONS
CONCLUSIONS
LIMITATIONS
SCOPE FOR FURTHER RESEARCH
REFERENCES
APPENDIX/ANNEXURE
It should be in a 8 point Calibri Font, single spaced and justified. The manuscript should preferably not exceed *5000 WORDS*.

12.   **FIGURES & TABLES:** These should be simple, crystal clear, centered, separately numbered & self explained, and **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. It should be ensured that the tables/figures are referred to from the main text.

13.   **EQUATIONS/FORMULAE:** These should be consecutively numbered in parentheses, horizontally centered with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word should be utilized. If any other equation editor is utilized, author must confirm that these equations may be viewed and edited in versions of Microsoft Office that do not have the editor.

14.   **ACRONYMS:** These should not be used in the abstract. The use of acronyms is elsewhere is acceptable. Acronyms should be defined on first use in each section: Reserve Bank of India (RBI). Acronyms should be redefined on first use in subsequent sections.

15.   **REFERENCES:** The list of all references should be alphabetically arranged. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. Also check to make sure that everything that you are including in the reference section is cited in the paper. The author (s) are supposed to follow the references as per the following:

- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (**ed.**) for one editor, and (**ed.s**) for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parentheses.
- Headers, footers, endnotes and footnotes may not be used in the document, but in short succinct notes making a specific point, may be placed in number orders following the references.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

UNPUBLISHED DISSERTATIONS

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITES

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT   vi

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

http://ijrcm.org.in/

CLASSIFYING STUDENTS PERFORMANCE BY ANALYZING INTERNAL ASSESSMENTS OF STUDENT DATA

M. SATISH KUMAR
ASSOCIATE PROFESSOR
DEPARTMENT OF MCA
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY
CHITTOOR

G SASI KUMAR
STUDENT
DEPARTMENT OF MCA
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY
CHITTOOR

H NAWAZ
STUDENT
DEPARTMENT OF MCA
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY
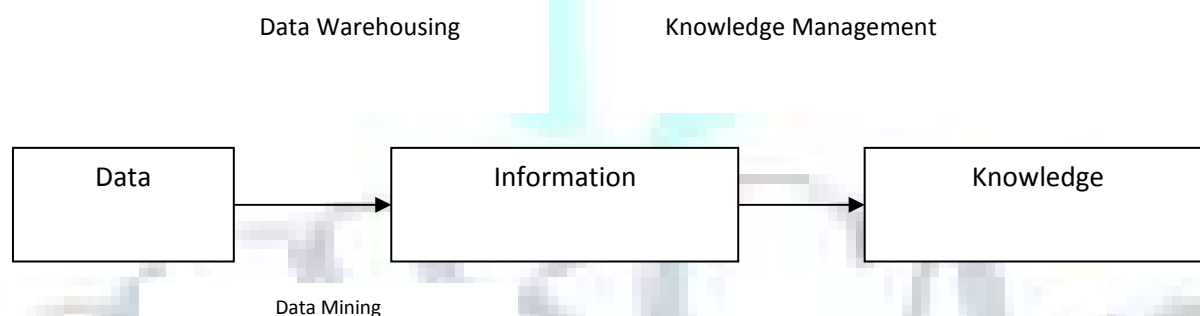**CHITTOOR**

ABSTRACT
Data Mining is used to extract meaningful information to develop relationships among variables. In this paper the student's performance are analyzed in order to learn how internal assessments will affect the final result. Here classifier algorithm is used to analyze the result attribute. The student internal assessments factors like mid terminal marks, assignments and attendance are studied. This analysis will help the faculty members to motivate students by predicting the final result.

KEYWORDS
Data Mining, classifier algorithm, Assessments, Predicting, Analyzed, Student Performance.

1. INTRODUCTION

Data Mining is data analysis methodology used to identify hidden patterns in a large data set. It has been successfully used in different areas including the education environment. Data mining in educational field is a interesting research area which extracts useful, previously unknown patterns from educational database for better understanding improved educational performance and assessment of the students learning process. It is concerned with developing methods for exploring the unique types of data that confirm educational environment which include student results repository.

As a students' repository is a collection of large amount of students' data, Data Mining and Classification technique can be applied to find interesting relationships between attributes of students.

FIG. 1: CONCEPT OF DATA MINING

Data Warehousing   Knowledge Management

Data Mining

As the following Fig.1 shows the concept of Data mining, this involves three steps:
1. Capturing and storing the data
2. Converting the raw data into information
3. Converting the information into knowledge

Data in this context comprises all the raw material an institution collects via normal operation, capturing and storing the data is the first phase that is the process of applying mathematical and statistical formulae to "mine" the data.

The collections of randomly selected student data are examined and assessed by the small group of teaching faculty members. An education reform for the 21st century has generated various models of learning of the performance of students. The assessment of student learning is an essential component in evaluating the overall institutional mid terminal marks, submission of assignments and attending to the class works regularly using J48 classifier algorithm.

Decision Tree analysis is a popular data mining technique that can be used to explain the interdependencies among different variables. In this paper decision Tree is used to extract the classification rules for the student data.

In this paper we analyze which internal assessment will affect more to get better results in the final university exams. It will help the academic planners in enhancing their decision making process in improving students performance.

The remaining sections of the paper are organized as follows: Section 2 describes the importance of Classification in analyzing. Section 3 explains about Data preparation for analyzing. Section 4 reports students' performance by analyzing internal assessments applied on data set. Finally we conclude this paper.

2. IMPORTANCE OF CLASSIFICATION

Databases are rich with hidden information that can be used for intelligent decision making. Classification is a kind of data analysis that can be used to extract models describing important data classes or to predict future data trends. This analysis can help us with better understanding of the data. Classification predicts categorical label.

DATA CLEANING

This alludes to the preprocessing of information in place evacuate or diminish the clamor (by applying smoothing systems, for instance) and the treatment of missing qualities (e.g. by supplanting a missing worth with the most regularly happening quality for that characteristic, or with the most plausible quality in light of measurements). Albeit most arrangement calculations have some mechanisams for taking care of boisterous or missing information, this step can help decrease disarray amid learning.

RELEVANCE ANALYSIS

A number of the traits in the information may be excess. Relationship examination can be utilized to distinguish whether any two given properties are measurably related. Case in point, a solid connection between A1 and A2 would recommend the one of the two could be expelled from further investigation. A database might likewise contain superfluous traits. Trait subset determination can be utilized as a part of these cases to discover a diminished arrangement of properties such that the subsequent likelihood circulation of the information classes is as close as would be prudent to the first appropriation acquired utilizing all characteristics. Subsequently, significance examination, as relationship investigation and trait subset choice, can be utilized to identify qualities that don't add to the arrangement or expectation undertaking. Counting such characteristics might somehow lull, and conceivably delude, the learning step.

Information change and lessening: The information may be changed by standardization, especially when neural systems or strategies including separation estimation are utilized as a part of the learning step. Standardization includes scaling all qualities for a given quality so they fall inside a little determined extent, for example, -1.0 to 1.0 or 0.0 to 1.0. In routines that utilization separation estimations, for instance, this would avoid characteristics with at first expansive reaches (like, say, wage) from out weighting qualities with at first littler extents, (for example, paired traits).

Information cleaning, pertinence examination (as connection investigation and trait subset determination), and information change are depicted in more prominent subtle element.

COMPARING CLASSIFICATION AND PREDICTION METHODS

Grouping and expectation techniques can be contrasted and assessed concurring with the accompanying criteria.

Exactness: The precision of a classifier alludes to the capacity of an offered classifier to effectively foresee the class mark of new or beforehand inconspicuous information (i.e., tuples without class name data). Additionally, the precision of indicator alludes to how well a given indicator can figure the estimation of the anticipated property for new or already inconspicuous information. Precision can be assessed utilizing one or more test sets that are free of the preparation set. Estimation systems, for example, cross-approval and bootstrapping, are depicted. Systems for enhancing the precision of a model are give on the grounds that the exactness registered is just an assessment of how well the classifier or indicator will do on new information tuples, certainty points of confinement can be processed to help gage this appraisal.

SPEED: This alludes to the computational expenses included in producing and utilizing the given classifier or indicator.

VIGOR: This is the capacity of the classifier or indicator to make right expectations given boisterous information or information with missing qualities.
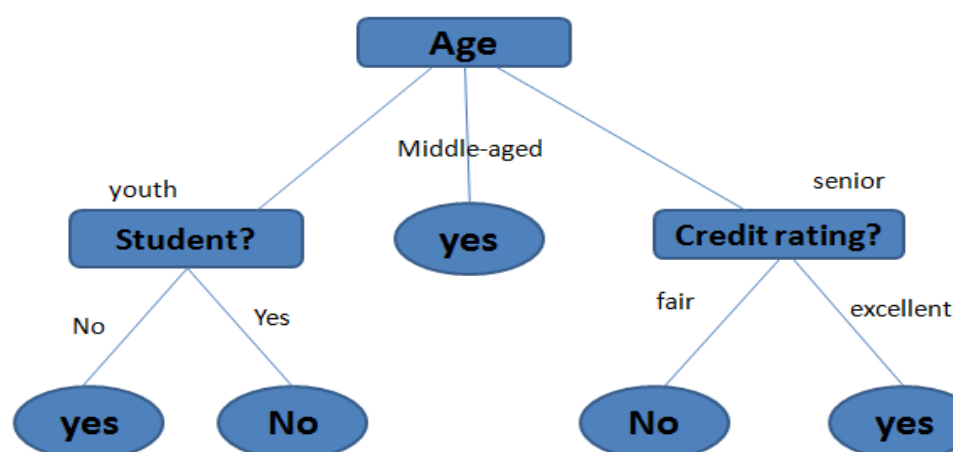
VERSATILITY: This alludes to the capacity to build the classifier or indicator productively given a lot of information.

INTERPRETABILITY: This alludes to the level of comprehension and understanding that is given by the classifier or indicator. Interpretability is subjective and in this manner more hard to evaluate. We talk about some work around there, for example, the extraction of grouping guidelines from a "discovery" neural system classifier got back to proliferation.

CLASSIFICATION BY DECISION TREE INDUCTION

Choice tree incitement is the taking in choice trees from class-marked preparing tuples. A choice tree is a flowchart-like tree structure, where every inward hub (non leaf hub) means a test on a quality, every branch speaks to a result of the test, and every leaf hub (or terminal hub) holds a class mark. The highest hub in a tree is the root hub.
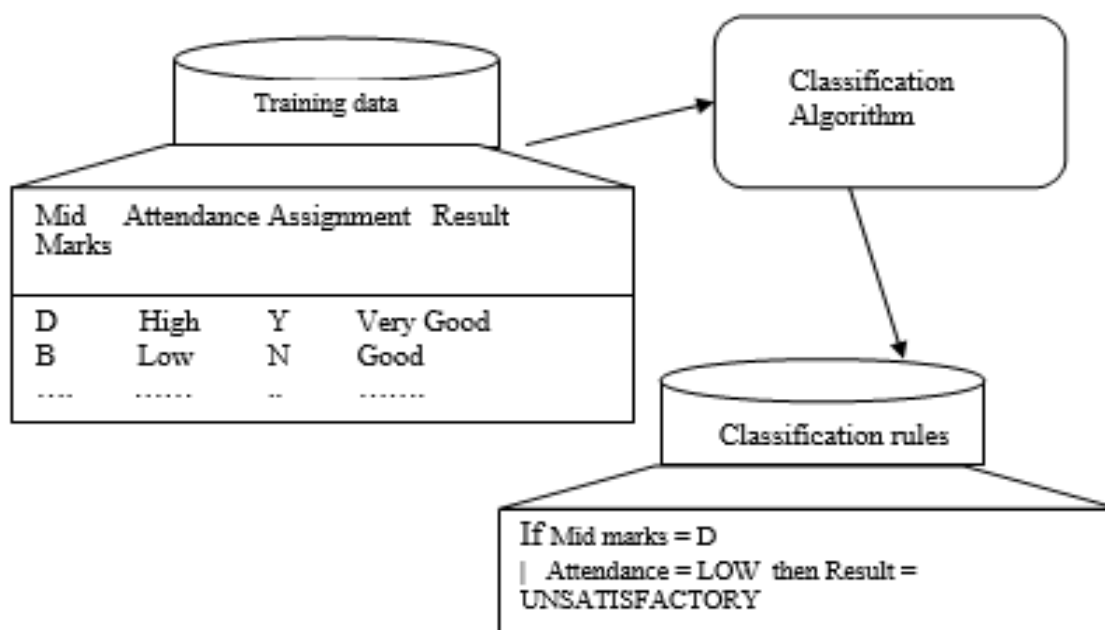
FIG. 2

"Why are choice tree classifiers so prevalent?" The development of choice tree classifiers does not require any space learning revelation. Choice trees can deal with high dimensional information. Their representation of procured learning in tree structure is instinctive and for the most part simple to acclimatize by people. The learning and grouping ventures of choice tree affectation are straightforward and quick. As a rule, choice tree classifiers have great exactness. In any case, effective utilization may rely on upon the current information. Choice tree incitement calculations have been utilized for order as a part of numerous application ranges, for example, drug, assembling and creation, budgetary investigation, cosmology, and atomic science. Choice trees are the premise of a few business standard instigation frameworks.

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT 30

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories
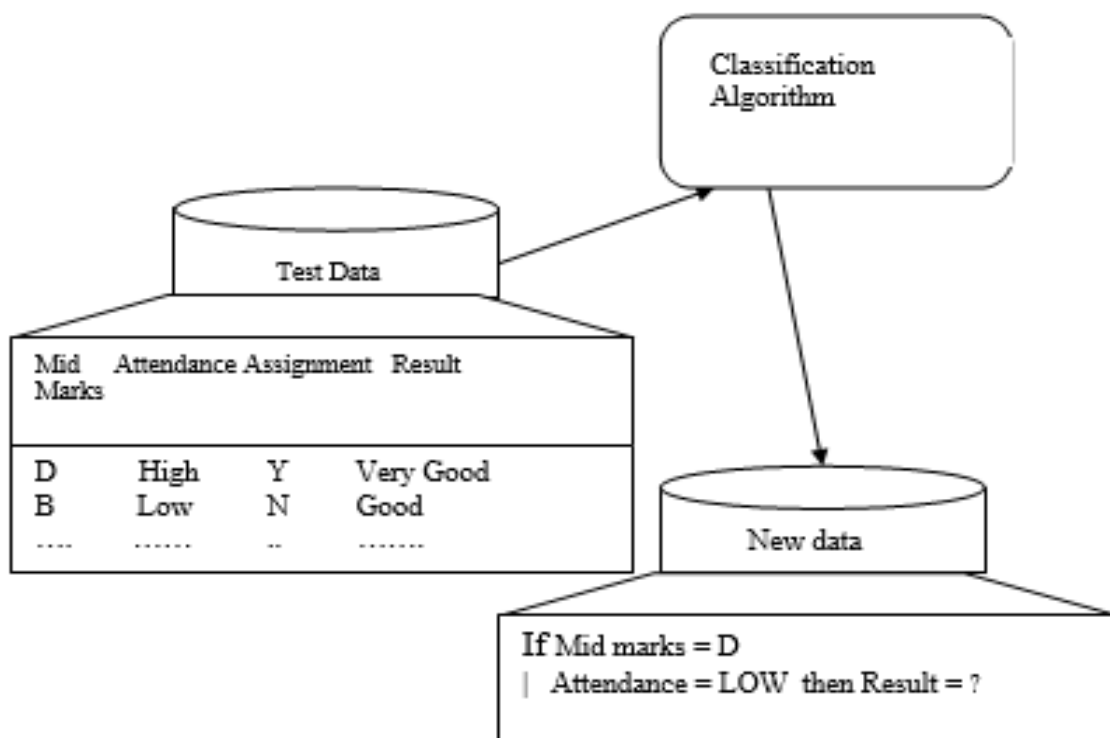
http://ijrcm.org.in/

2.1 CATEGORIZATION PROCEDURE

Data classification is a two-step process, as shown in Fig. 3

FIG. 3: CLASSIFICATION PROCESS

2.1.1 SUB-SUBSECTION

When including a sub-subsection you must use, for its heading, small letters, 11pt, left justified, bold, Times New Roman as here.

3. TROUBLE CLARIFICATION

Figures and Tables should be numbered as follows: Fig.1, Fig.2, ... etc Table 1, Table 2, ...etc.

If your paper deviates significantly from these specifications, our Publishing House may not be able to include your paper in the Proceedings. When citing references in the text of the abstract, type the corresponding number in square brackets as shown at the end of this sentence [1].

4. CONCLUSION

Please, follow our instructions faithfully, otherwise you have to resubmit your full paper. This will enable us to maintain uniformity in the conference proceedings as well as in the post-conference luxurious books by WSES Press. The better you look, the better we all look. Thank you for your cooperation and contribution. We are looking forward to seeing you at the Conference.

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT 31

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

http://ijrcm.org.in/

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Computer Application & Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you tosupply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mail**infoijrcm@gmail.com** for further improvements in the interest of research.

If youhave any queries please feel free to contact us on our E-mail **infoijrcm@gmail.com**.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-
Co-ordinator

DISCLAIMER

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publishers/Editors. Publication does not constitute endorsement by the journal. Neither the Journal nor its publishers/Editors/Editorial Board nor anyone else involved in creating, producing or delivering the journal or the materials contained therein, assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information provided in the journal, nor shall they be liable for any direct, indirect, incidental, special, consequential or punitive damages arising out of the use of information/material contained in the journal. The journal, nor its publishers/Editors/ Editorial Board, nor any other party involved in the preparation of material contained in the journal represents or warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from the use of such material. Readers are encouraged to confirm the information contained herein with other sources. The responsibility of the contents and the opinions expressed in this journal is exclusively of the author (s) concerned.

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals