

# HiFi Hotel Business & Management with Computers & Robots of 2024

**Mr. Krishna Murthy M.S., Er. Bedre Heeramani, Er. Bedre Nagaraj**

<sup>1</sup>Finance Manager & Tax consultant, Industry, Shivamogga, Karnataka, India

<sup>2</sup>Lecturer Computer Science Dept., Sahyadri Science College(Autonomous), Vidyanagara, pushpa c/o Sri Erannaswamy, Infront Anjaneya temple, Lig24, Vinobanagara, Shivamogga, Karnataka, India

<sup>3</sup>Lecturer Computer Science Dept., Sahyadri Science College(Autonomous), Vidyanagara, pushpa c/o Sri Erannaswamy, Infront Anjaneya temple, Lig24, Vinobanagara, Shivamogga, Karnataka, India

## ABSTRACT

Computers witnessed several challenging appreciations in variety of fields. The way by which we communicate, way of performing tasks, way of lifestyle, way of approaching anything in the world and way of doing business has become simple with developments taken place in the era of modern computers. Computer enabled applications are most powerful and effective method of getting solutions. Hotel Business is vital and one of toughest management for providing good quality of service. This paper focus on HiFi Hotel Business and Management with the Computer Science and Engineering applications during 2024.

**Keywords :** Algorithm, Multimedia, Cloud, Robot, Software

## I. INTRODUCTION

Business in olden days are different from those of modern days. Olden days business steps are tedious and many times the standard and quality products went out without reaching customers. One of key factor which is important in business activities is Management. In overall management usually there will be high involvement of human factors. But now a days there are some systems which will do the task of Management even with very little or even no involvement of humans.

With drastic changes in Electronic advancements specially inventions of new computers with powerful softwares and hardware it has resulted in design and analysis of management . There are various types of Business among which Hotel Business and Management is considered to be very useful for tourist as well as for others where providing good quality of service and in time service is important. Multimedia is combination of the audio, video, graphics, animation. Image & text. Multimedia finds applications in following areas:

- ✓ Multimedia in schools
- ✓ Multimedia in Hotel Management
- ✓ Multimedia in Tourism Industry
- ✓ Multimedia in business
- ✓ Image processing & recognition
- ✓ Film industry
- ✓ Finger print identification
- ✓ Full motion digital video
- ✓ Electronic messaging
- ✓ Document imaging
- ✓ Home
- ✓ Public places
- ✓ Virtual reality
- ✓ Medical diagnosis
- ✓ Engineering fields
- ✓ Chemical Synthesis
- ✓ Geo physics
- ✓ Mathematical applications
- ✓ Microbiology
- ✓ Biotechnology
- ✓ Video conferencing
- ✓ Video on demand
- ✓ Earth quake estimation

## II. METHODS AND MATERIAL

### A. Related Work

Multimedia is the combination of various types of media's including audio, video, graphics, animation, text and images. Technology of multimedia now a days will be supported by many new input and output devices which are out of reach of imagination during previous years.

Wireless Technology has changed the world with statement "Do task from distant location". Thus one should not worry about problems of connection related problems encountered for wired technology.

LAN, WAN, MAN are popular. TCP/IP Technology have contributed for Internet working . With Internet, it created several such as E-Banking, E-Trading, E-Governance, E-Commerce, E-Ticket, E-Passport, E-Tourism, E-Advertising, E-Shopping etc.

Due to support of computers it has been possible to do many task with very less efforts just sitting in front of computers and also very fastly within fractions of seconds.

Further developments like cloud computing, Robots, Multimedia Computing, NANO technology, Data mining, Neural Network, Network Security, Algorithms, Programming languages etc have contributed not only solution but secure, reliable and best quality results for any complex applications.

Hotel Business and Management involves various activities and are as follows:

- ✓ Providing good and hygiene foods at competitive prices.
- ✓ Provide foods ranging from local to international levels .
- ✓ Food products quality.
- ✓ Facilities of food items round the clock.
- ✓ Room Facilities with affordable prices.
- ✓ Room with proper furnitures with maintenance of cleanliness.

Good location of Hotel with good transport facility connections.

Moving belt enabled auto staircase / Lifters.

- ✓ Basic facilities.
- ✓ Fresh air.
- ✓ Gardening.
- ✓ Free from sound & water pollution.
- ✓ Good Suply of water ( cold and hot)

Maps for navigation

- ✓ Fascinating paintings and attractive floors
- ✓ Superior strengthened building with high security.

Henn-Ha Hotel, which will be staffed almost entirely with robots.

The 10 humanoid robots, or "actroids," are designed to look and act like young Japanese women. They speak fluent Japanese, Korean, Chinese and English, according to the hotel's release.

Robotics company Kokoro manufacturers the 'bots, which mimic human actions like blinking and are programmed to respond to basic human cues, like body language and tone. "Henn" means either change or strange in Japanese, according to the report in the Washington Post.

The hotel developer Huis Ten Bosch said there will be human staff to supplement the robots — who will act as receptionists, bellhops and maids — but the robots will do about 90 percent of the work. "We will make the most efficient hotel in the world," president Hideo Sawada told the Japan Times.

The hotel itself will be wired for maximum efficiency as well, with guests accessing rooms through facial recognition, room temps monitored and adjusted according to body heat, and a hotel-provided tablet that allows guests to request services. It will be located within a theme park modeled on 17th-century Dutch settlement, also called Huis Ten Bosch. Figures 1 to 15 shows snapshots of auto machines/ robots.

### B. Multimedia Applications

Multimedia finds applications in following areas:

- ✓ Hotel Management
- ✓ Multimedia in schools

- ✓ Multimedia in business
- ✓ Image processing & recognition
- ✓ Film industry
- ✓ Finger print identification
- ✓ Full motion digital video
- ✓ Electronic messaging
- ✓ Document imaging
- ✓ Home
- ✓ Public places
- ✓ Virtual reality
- ✓ Medical diagnosis
- ✓ Engineering fields
- ✓ Chemical Synthesis
- ✓ Geo physics
- ✓ Mathematical applications
- ✓ Microbiology
- ✓ Biotechnology
- ✓ Video conferencing
- ✓ Video on demand
- ✓ Earth quake estimation

### C. Proposed Algorithm

- Step 1. Computer software's are created separately for individual task implementation like prepare food, receive orders from customers, provide required service automatically without human intervention, alert service, service to display time-food items available-map-help desk, controlling and monitoring auto on and off of lights/tv/refrigerator/mobile charging/mobile/doors/windows etc, Security checker, raw items required, automatic room booking and billing based on Customers choices.
- Step 2. After creation of above softwares it is installed and Internet of Things technology used for connecting and operating various devices
- Step 3. Create Robots which will talk/walk/jump for doing communications and understanding with eligible to perform any real time task effectively
- Step 4. Creation of new protocols for management.
- Step 5. Use of clouds, Multimedia, Graphics, Animation, Data mining, Neural Networks, Web Technologies in integrative style
- Step 6. Creation of new input and output devices.

### D. Working Model

This model is created and implemented by computer having following tasks performed easily.

If the customer comes to hotel a robot should approach and invite with water and display menu both in textual method over screen as well as sound system by reading available items as per requirement. After getting orders by customer the signals passed by suppliers robot to kitchen robot via Internet of Things and it should print the food . This food is made available to customers and further options for ordering / getting bill. If customers wants to get bill then automatically bill generated by billing robot. Cash by customers in currency/credit debit cards/cheque/any other forms must be validated and Transaction is to be performed with software.

If to book for rooms then customers can do on spot/online at any time by seeing the photos hots of rooms and also menu showing prices and facilities of rooms. The room can be booked by getting details by know customers robot and information stored on database. For cleaning/food serving/help etc there will be separate robots which perform tasks based on computer and internet of things.

### E. Merits

The following are some of merits of this type of examination system:

1. Saves paper which directly saves our natural balance by not destroying trees
2. Serves various types services quickly with high quality
3. High Accurancy
4. Saves human energy
5. Best quality of service
6. Uniform services to all customers
7. Good communication and understanding as robots development

### F. Demerits

Following are demerits of multimedia online exam system

1. It is of high cost

2. Performance of system depends on software controlling process
3. Very difficult to program as every aspects must be done automatically by system including verification of user name, password, verification of candidates by image processing, client server implementation for transmit of softcopy especially of requirements
4. Network related problems will affect services
5. Software for Monitoring work as must be tested thoroughly before using it.

### III. RESULTS AND DISCUSSION

Creating such HiFi hotels and related business is based on software, Hardware, Multimedia and programming.

Following are challenges of such HiFi hotels

1. Creative thinking robots are big challenge for computer science engineer
2. Providing network at all times is another challeng especially during network congestion
3. Security aspects implementation is difficult
4. Costa performance ratio balancing is also a challenge which measures overall system
5. Providing best quality at best price is challenging task

Following are some of robots and/or auto machines in use of hotel industry.



**Figure 1**



**Figure 2**



**Figure 3**



**Figure 4**

**Figure 1 to 4 : Robots / Auto machines**



**Figure 5.** Dash is the latest addition to the Crowne Plaza workforce as it tends to customers' needs



**Figure 8.** It is hoped the swift performance of the worker will go down a treat with gueststatement



**Figure 6.** The customer orders food and drink as normal, by phone or wireless, and it is delivered by a robot



**Figure 9.** Aloft Hotels first Botlr, dressed to impress



**Figure 7.** Guests will grow not to be shocked by new room service seeing Crowne Plaza's newest recruit in San Jose



**Figure 10.** Helping hand: Botlr autonomously transports everything from toothbrushes to the day's paper as it navigates the the rooms and five floors of the hotel



**Figure 11.** Robot for back and front duties



**Figure 12.** Japan's first hotel serviced by robots



**Figure 13.** Dosa preparing Robot

## T-ROBOT

STAINLESS STEEL TEA INFUSER



**Figure 14.** TEA Robot



**Figure 15.** Bread Robot

## IV. ACKNOWLEDGEMENTS

We authors are hereby express our sincere thanks and acknowledgements to the mother Smt. PUSHPA c/o Sri Eranna swamy Infront of anjaneya temple Lig24 vinobanagara Shivamogga karnataka for continuous encouragements. We also Thank to Mahadimane Subbarao doijode , Saraswathi and Chinnu Anna for their support.

## V. CONCLUSION AND FUTURE WORK

In the future more powerful computers designed with high quality of performance by Internet Of Things for Hotel Business and Management . These services will create enough opportunities in fields of robot creations and signaling. These services depends on software. Reliance of software directly relates to HiFi Hotel Business and Management.

## VI. BIOGRAPHY



**Author 1 :** Mr.Krishna Murthy M.S, Manager from industry background. His areas of interest includes softwares in management, professional consultancy & project management



**Author 2 :** Er. Bedre Heeramani has completed BE (CS&E), M. Tech (CS&E) first class from JNNCE Shivamogga affiliated to VTU approved by AICTE . She is currently working as lecturer in department of computer science of sahyadri science college (autonomous university) shivamogga from 4 years and thought subjects data structures, computer networks, Unix, logic design, java programming, operating systems. Her areas of interest include neural networks and design of algorithms.

**Author 3 :** Er. Bedre Nagaraj , has completed BE (CS&E), M. Tech (CS&E) both first class from BIET, Davanagere & JNNCE Shivamogga respectively. He has teaching experience of 18years for various courses BE(CS&E), MCA,PGDCA,MTA, BCA,BSc etc and handled about 50 computer science subjects. He is currently working as lecturer in department of computer science of sahyadri science college(autonomous university) shivamogga. His areas of interest includes artificial neural networks, programming languages, compilers, data structures, analysis of algorithms, multimedia, graph theory, computer architectures.

## VII. REFERENCES

- [1]. Bedre Heeramani, B.Nagaraj: Volume 2, Issue 4, April 2012 ISSN: 2277 128X,International Journal of Advanced Research in Computer Science and Software Engineering Research Paper:"Research Issues of Interactive Multimedia for Advanced Computing & Communication for Challenging Applications"
- [2]. Bedre Heeramani, B.Nagaraj: Volume 3, Issue 3, April 2013 ISSN: 2277 128X,International Journal of Advanced Research in Computer Science and Software Engineering Research Paper:"Emerging technological trends of 2012-2013 data flow supercomputer design issues for challenging applications"
- [3]. Bedre Heeramani, B.Nagaraj,Volume 3, Issue 4, April 2013 ISSN: 2277 128X,International Journal of Advanced Research in Computer Science and Software Engineering Research Paper:" Research Dimensions of Advanced Mobile Computing Technology Security Issues for the Complex Applications" paper idv3i4-0499
- [4]. Bedre Heeramani, B.Nagaraj: Volume 3, Issue 6, April 2013 ISSN: 2277 128X,International Journal of Advanced Research in Computer Science and Software Engineering Research," Research of system software tool with innovative technological trends of detailed design in advanced software engineering and quality assurance tools for 2012-2013 applications " paper idv3i6-0382
- [5]. Bedre Heeramani, B.Nagaraj: Volume 2, Issue 1, may 2013 ISSN: 2320 0804, International Journal of Engineering associates Research Paper:"Research of Modern Embedded Computer System Challenging Program Techniques for the Global Computer Science & Engineering Applications of Distributed Computing for 2012-2013"
- [6]. Bedre Heeramani, B.Nagaraj,paper "challenges of cloud computing",GJCSIT,Global Journal of computer science and information technology,volume2, issue4.
- [7]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj. Paper : Advanced challenges of nanotechnology based Accounting.Volume, Issue8 IJATES-INTERNATIONAL Aug2016
- [8]. Bedre Heeramani, B.Nagaraj, "Research of New Non Iterative Fastest Neural Network Algorithm" International Journal of Innovative Research in Science, Engineering & Technology.IJIRSET 4 (9), 9051-9057, 2015September,volume 4, Issue 9, ISSN:2319-8753
- [9]. Er.Bedre Heeramani, Er.NagarajB," Challenges of Network security", International Journal of innovative research in Science and Engineering, volume2, Issue 8, 2016 Aug, IJIRSE,ISSN 2454-9665
- [10]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "Technology based commercial business impacts on environment and research issues for advancements in computerised trading 2016:2017", IJATES, Volume 4, Issue 9, sept2016,International Journal of Advanced Technology in engineering and science.ISSN 2348-7550
- [11]. Er.Bedre Heeramani, Er.Nagaraj B, Fourth international conference on recent trends in engineering, science & management, 2016August, "challenges of network security",ICRTESSM-16, GOA,Panjim, ISSN-973-93-86171-01-6
- [12]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj,"Advanced challenges of nanotechnology based Accounting",ICRISMET-2016, August,ISBN:978-93-86171-04-07. International Conference on Recent Innovations in Sciences, Management education and Technology, JCD memorial college Sirsa, Haryana
- [13]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "INTELLIGENT ROBOT SOFTWARE RESEARCH ISSUES FOR MODERN BANKING MANAGEMENT" Second. International. conference on"Latest innovations in science, Engineering and Management" Goa
- [14]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "INTELLIGENT ROBOT SOFTWARE RESEARCH ISSUES FOR MODERN BANKING MANAGEMENT", IJATES,Volume 4, Issue 10.
- [15]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, " Current trends in mobile banking research issues", International Journal for Research in Business Management, Volume 2, Issue 11, November 2016, ISSN-2455-6114
- [16]. "brown goods". Collins English Dictionary. Retrieved 5 December 2014.
- [17]. McDermott, Catherine (30 October 2007). Design: The Key Concepts. Routledge. p. 234. ISBN 9781134361809. Retrieved 5 December 2014.
- [18]. CEA: Industry Sales Data
- [19]. Wigmore, I. (June 2014). "Internet of Things (IoT)". TechTarget.
- [20]. "Internet of Things (IoT)". gatewaytechnolabs.com.

- [21]. Alippi, C. (2014). *Intelligence for Embedded Systems*. Springer Verlag. ISBN 978-3-319-05278-6.
- [22]. [http://www.oregonlive.com/window-shop/index.ssf/2015/01/6\\_new\\_gadgets\\_that\\_antici pate.html#0](http://www.oregonlive.com/window-shop/index.ssf/2015/01/6_new_gadgets_that_antici pate.html#0)
- [23]. O'Sullivan, Arthur; Sheffrin, Steven M. (2003). *Economics: Principles in Action*. Upper Saddle River, New Jersey 07458: Pearson Prentice Hall. p. 29. ISBN 0-13-063085-3.
- [24]. Johnason, P. (2009). HRM in changing organizational contexts. In D. G. Collings & G. Wood (Eds.), *Human resource management: A critical approach* (pp. 19-37). London: Routledge.
- [25]. Collings, D. G., & Wood, G. (2009). *Human resource management: A critical approach*. In D. G. Collings & G. Wood (Eds.), *Human resource management: A critical approach* (pp. 1-16). London: Routledge.
- [26]. Paauwe, J., & Boon, C. (2009). Strategic HRM: A critical review. In D. G. Collings, G. Wood (Eds.) & M.A. Reid, *Human resource management: A critical approach* (pp. 38-54). London: Routledge.
- [27]. Klerck, G. (2009). "Industrial relations and human resource management". In D. G. Collings & G. Wood (Eds.), *Human resource management: A critical approach* (pp. 238-259). London: Routledge.
- [28]. <http://www.whatishumanresource.com/Human-Resource-Management-functions>
- [29]. Mr.Krishna Murthy M.S,Er.Bedre Heeramani, Er.Bedre Nagaraj," RESEARCH OF BUSINESS ENTERPRUENERAL POLICIES FOR POWER OF COMPUTER SCIENCE AND ENGINEERING IN 2025 ", paper id 3674, Volume 3, Issue 1, 2017,IJARIIE, www.ijariie.com
- [30]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "RESEARCH OF SMART BUSINESS MARKETINGTECHNIQUES BY INTERNET OF THINGS FOR GLOBAL TRADING IN 2017", INTERNATIONAL JOURNAL OF SCIENCE TECHNOLOGY & MANAGEMENT, IJSTM, Volume 5, Issue 12, Dec 2016, ISSN(O)2394-1537, www.ijstm.com
- [31]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "Technological Innovative Research in the era of Advanced Computer Software Applications for Controlling the Electronic Devices with revolutionary opportunities in International Business during 2020", International Journal of Innovative Research in Computer and Communication Engineering, IJRCCE, VOLUME 4, ISSUE 11, November 2016
- [32]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "RESEARCH OF SMART BUSINESS MARKETINGTECHNIQUES BY INTERNET OF THINGS FOR GLOBAL TRADING IN 2017", 3rd International Conference on Recent Innovations in Science, Technology, Management and Environment, ICRISTME-16,, IFUNA, Indian Federation of United Nations Associations, New Delhi, Dec 2016
- [33]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "INFORMATION TECHNOLOGY MANAGEMENT CHALLENGES IN AUDIT CONTROL", IJARIE, ISSN(O)-2395-4396, VOLUME 2, ISSUE 6, December 2016
- [34]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "Technology based commercial business impacts on environment and research issues for advancements in computerised trading 2016:2017", ICRTSTM-16, 2016, ISBN:978-93-86171-05-04.
- [35]. <http://www.geekwire.com/2015>
- [36]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "Challenges of Software market and software business", International Journal of Science Technology and Management . ISSN(O)2394-1537, Volume 6, Issue 1 Jan 2017. IJSTM
- [37]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "Web Commerce Based Online Multimedia Examination System", IJIRMF, INTERNATIONAL JOURNAL FOR INNOVATIVE RESEARCH IN MULTIDISCIPLINARY FIELD, ISSN – 2455-0620 Volume - 3, Issue - 1, Jan – 2017
- [38]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "Challenges of Software market and software business", 9<sup>th</sup> International Conference on Recent Innovations in Science , Engineering & Management(RISEM-17), ISBN:973-93-86171-22-1, Dhruva Institute of Engineering and Technology , Nalgonda.
- [39]. Mr.Krishna Murthy M.S, Er.Bedre Heeramani, Er.Bedre Nagaraj, "Era of 2027 computes in Human Resource Management with Internet of Things", Volume 3, Issue 2, Feb 2017, ISSN- 2455-6144, FEB 2017
- [40]. [http://www.dailymail.co.uk/travel/travel\\_news/article-3187169/Is-future-room-service-Robots-deployed-cater-hotel-guests-needs-navigate-lifts.html](http://www.dailymail.co.uk/travel/travel_news/article-3187169/Is-future-room-service-Robots-deployed-cater-hotel-guests-needs-navigate-lifts.html)