

## Use Of Ai In Teaching English To Students Of Indian Native Languages

**Dr. Jennifer Dsouza**

Associate Professor in Business Communication  
Narsee Monjee College of Commerce and Economics  
Vile Parle (W), Mumbai

**How to cite this article:** Jennifer Dsouza (2024) Use Of Ai In Teaching English To Students Of Indian Native Languages. *Library Progress International*, 44(3), 15167-15174.

### Abstract

A creative technique for instructing English to understudies from an assortment of neighborhood language foundations in India is conceivable with the utilization of computerized reasoning (man-made intelligence). This study dives into the manners by which voice acknowledgment frameworks, AI procedures, and regular language handling (NLP) are impacting ELT to improve things. Customized growth opportunities, multilingual help, and continuous input on syntax, elocution, and jargon are only a couple of ways these innovations help understudies whose first language isn't English conquered the specific etymological issues they experience. Teachers might fabricate an adaptable and inviting homeroom environment by utilizing man-made reasoning (computer based intelligence) innovations like as chatbots, interpretation programming, and insightful coaching frameworks. While featuring computer based intelligence's capacity to close holes in admittance to great language guidance, this exploration likewise considers the snags to artificial intelligence reception, including advanced education, infrastructural limits, and moral contemplations. By adjusting to the novel dialect necessities of Indian understudies and empowering more equivalent learning results, the outcomes demonstrate that computer based intelligence can possibly enormously improve the adequacy of English language learning for these understudies.

**Keywords:** Artificial Intelligence, English, Language, Teachin, Indian Languages, Linguistic Diversity

### 1. INTRODUCTION

The coming of computer based intelligence has been a unique advantage in many fields, modifying entire enterprises and influencing the manner in which individuals complete ordinary errands. In the field of training, man-made consciousness (simulated intelligence) is presenting new difficulties to laid out techniques for guidance while at the same time giving energizing new chances to further develop understudies' language opportunities for growth. This is particularly evident in the field of English language educating (ELT). This presentation lays the foundation for diving into the critical impact of computer based intelligence in ELT, exhibiting its capacity to fit examples to individual understudies, make drawing in virtual homerooms, and fulfill the needs of a great many students.

There have been significant advancements in simulated intelligence during the last ten years that have impacted language guidance: keen mentoring frameworks, versatile learning stages, and calculations for handling regular language. To give customized examples that address every understudy's remarkable acquiring style and current ability level, these computer based intelligence fueled apparatuses filter through heaps of information, including their connections, inclinations, and execution markers [1].

Man-made consciousness likewise makes it conceivable to assess and give criticism progressively, and that implies that understudies might find support with their elocution, punctuation, and jargon immediately. Computerized reviewing frameworks, virtual language colleagues, and intelligent chatbots are only a couple of ways that man-made reasoning works on the adequacy and effectiveness of language educating by means of the arrangement of individualized help and support.

As well as working with individualized guidance, computer based intelligence makes ready for the improvement of completely vivid etymological and social learning conditions. By consolidating VR innovation with computer based intelligence calculations, it is feasible to place understudies in a reenacted climate where they might work on tuning in, talking, and collaborating with local English speakers. Social mindfulness and the capacity to impart across societies are two results of these inundation encounters that supplement the improvement of language capability and understanding.

The expanded spotlight on man-made intelligence related mechanical improvements is owing to the way that computer based intelligence is a sort of computational inventiveness. A lot of man-made intelligence innovation has been utilized to empower machines to display greater inventiveness. The source is Rahman (2009): page. Figuring and understudy search are instances of independent programming exercises that fall under the umbrella term of man-made reasoning (simulated intelligence). "Keen" devices worked with man-made consciousness (artificial intelligence) mirror the way of behaving and reactions of the human mind and incorporate PC frameworks, web stages, and mechanized hardware, like robots. As per Maherotra (2019), computer based intelligence is otherwise called machine knowledge (MI). The machine's capacity to figure insight depends on the keenness that individuals normally show. Fundamentally, what we call "man-made brainpower" (simulated intelligence) is the most common way of empowering PCs to think and behave like people [2]. Mehrotra (2019) states that man-made reasoning (simulated intelligence) is a field inside software engineering that concentrates on the turn of events and assessment of brilliant frameworks and programming. The investigation of how to program PCs to mirror human acumen is known as man-made brainpower (simulated intelligence). For man-made intelligence to work, knowledge is critical, as called attention to by Wang (2019). Man-made reasoning (man-made intelligence) is characterized by Whitby (2009) as the investigation of savvy conduct in PCs, people, and different animals determined to track down answers for issues. Man-made brainpower (artificial intelligence) is a truncation for both knowledge and computerized reasoning. Something isn't absolutely phony when it is designated "counterfeit," at this point it is imitated or faked as opposed to real. When contrasted with genuine articles, "knowledge" may stand its ground in unambiguous settings because of its better credits. Insight is difficult to nail down. Innovativeness, mindfulness, the capacity to understand individuals at their core, rationale, and mindfulness are portions of it. As Joshi (2019) calls attention to on a similar page. The third. The objective of man-made consciousness exploration ought to be to make machines that can finish assignments typically performed by people, instead of to assemble supercomputers equipped for tackling any issue. The target of man-made brainpower is to make PC projects or equipment that can copy human mind somehow or another, whether it's by means of thinking or different qualities. As per the idea of PC frameworks, computer based intelligence can go about responsibilities that regularly interest for human acumen. A few pieces of human insight, such visual discernment, navigation, language mindfulness, and voice acknowledgment, are inside the simulated intelligence's domain. Man-made brainpower is vital for master frameworks and answers for troublesome issues, for example, acknowledgment and regular language handling. utilizing computer based intelligence to show a language [4]. In a low-stakes setting, man-made intelligence gives students progressing, individualized preparing, empowering them to attempt new things and gain from their disappointments. Moreover, it furnishes understudies with the essential framework errands and an abundance of criticism to become capable. essential benefit of man-made intelligence.

Also, language learning applications controlled by artificial intelligence are entirely adaptable and open, permitting students from varying backgrounds and all edges of the globe to benefit. Understudies might concentrate on English at their own speed utilizing computer based intelligence controlled stages that are available every minute of every day, considering continuous learning in any event, when class isn't in meeting.

The utilization of artificial intelligence in ELT, nonetheless, isn't without its portion of hindrances and variables to contemplate. To ensure fair and moral language instructing, we should completely analyze issues like algorithmic predisposition, information protection concerns, and the capability of teachers in computer based intelligence driven instructive settings. Man-made reasoning (artificial intelligence) can possibly change language learning and give understudies the apparatuses they need to become familiar English speakers, yet instructors require legitimate direction and readiness to completely understand this commitment and integrate it into their illustrations [5]. Instructors have the ability to change language learning and prepare understudies for a world that is interconnected by means of the mindful and cooperative utilization of man-made consciousness [6].

## 2. LINGUISTIC DIVERSITY IN INDIA

The wide variety of Indian dialects makes the investigation of man-made intelligence for Indian dialects a significant and growing area of examination. The different populace of India talks a complex etymological embroidery that incorporates many dialects. There are benefits and hindrances to creating and involving artificial intelligence innovation in India because of the country's etymological assortment.

Recollect these focuses while examining simulated intelligence in Indian dialects and the large number of Indian dialects:

1. **Script Diversity:** Indian dialects are written in various contents, including Devanagari, Latin, Bengali, Telugu, Tamil, and others. Computerized reasoning calculations that can deal with many contents are trying to create.
2. **Linguistic Variants:** The dialects expressed in India are very different, with numerous territorial vernaculars and assortments. For simulated intelligence models to function admirably all through the country, these distinctions should be thought of.
3. **Low-Resource Languages:** There is an absence of computerized material and information for preparing simulated intelligence models in a large number of India's less popular dialects since they are low-asset dialects. Along these lines, creating simulated intelligence applications in these dialects is seriously difficult.
4. **NLP Challenges:** A significant piece of simulated intelligence, regular language handling (NLP) is challenging to execute in India because of the country's semantic assortment. To get it and cycle the various contents and dialects, explicit normal language handling models and assets are required.
5. **Language Preservation:** A man-made reasoning fueled answer for the issue of imperiled dialects may be the production of advanced materials and devices. Documentation and digitization of these dialects are in progress.
6. **Language Technologies:** The public authority of India and different gatherings are creating language innovations to make simulated intelligence open to a more extensive scope of dialects. This includes the advancement of discourse acknowledgment, machine interpretation, and text-to-voice frameworks that help a few dialects.
7. **Content Localization:** To extend the crowd for applications and content, making an interpretation of them into numerous languages is important. The confinement cycle might be helped by artificial intelligence by means of the robotization of interpretation and variation.

## 3. RESEARCH METHODOLOGY

The methodologies that were utilized in this article audit are itemized in these parts. The review configuration is talked about as far as article examining, information gathering strategies, and information examination procedures in the amalgamation of the survey of publications[7].

### 3.1 Research Design

To address the one examination question presented in this review, content investigation is utilized as a component of the subjective exploration plan. As indicated by Fraenkel, Wallen, and Hyun, content examination incorporates the investigation of any composed material, including however not restricted to: books, expositions, recipes, course readings, political discourses, advertisements, and photos. Nonetheless, to resolve the issue presented in point[8], the specialist blends material appropriate to the subject from research distributions, which comprise the premise of this paper's audit of articles.

### 3.2 Sampling of research articles

Ebscohost, Science Direct, and Scopus are the data sets used to arrange the exploration papers used to survey the utilizations of simulated intelligence in ESL homerooms and language advancing by and large, and specifically in the 'Discoveries' segment. On account of their better dependability looked at than using on the web search tools like Google and Yippee, these assets meet the passing necessity [9]. The articles submitted to the data sets are likewise of better caliber. Moreover, for this review, we may be utilizing research distributions distributed inside the last five (5) years. The reasoning for this is on the grounds that the uses of computer based intelligence in language guidance are not covered until after the conversation of late examination results.

### 3.3 Data collection procedures

The information assortment process for this exploration follows a four-step design. 'Decide applicable information bases' is the principal stage, and it includes choosing three data sets — Scopus, Ebscohost, and Science Direct — from which to draw assets. The subsequent stage, "Scout pertinent articles," includes choosing papers that talk about the utilization of man-made intelligence in language guidance. What's more, we only investigate distributions that give whole archives. Stage three includes combining the information. The substance of exploration articles is determined through perusing, understanding, and surmising their items. Stage four closes with the arrangement of subjects, which take into account the recognizable proof of applicable and fascinating realities. To depict the outcomes that follow the advancement of the exploration question toward the start of this survey article, the expressed subjects are utilized [10].

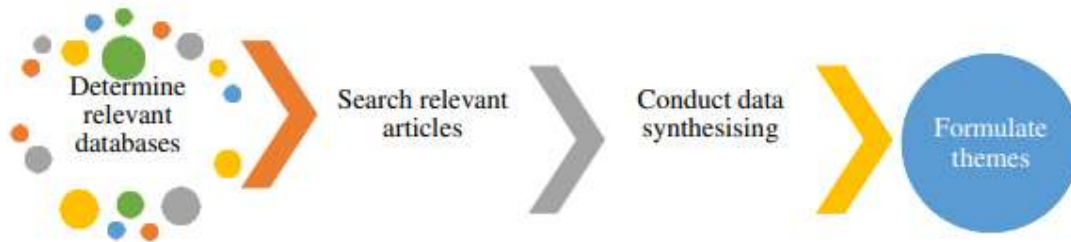


Figure 1: Step by step instructions to assemble data for an article survey

### 3.4 Data analysis procedures

To assess the exploration papers, five (5) steps are taken. To start looking for proper articles, the analyst should first "Determine Unit of Examination," in which she indicates the expressions, words, and sentences that will be placed into the data set [11]. You might track down additional words, expressions, and sentences as well as their implications and equivalents by utilizing a thesaurus. The subsequent step is to "Find Pertinent Information," which involves scanning web data sets for modern examination distributions. "Make an Idea or Reasoning" comes up third. As of now in the examination cycle, the specialist peruses the articles and participates in skimming, checking, breaking down, and orchestrating. Stages 3 and 4 are joined in Sync 4 of "Foster a testing plan," where the scientist utilizes an irregular examining method to uncover pertinent material. Then, at that point, the picked articles are skimmed, checked, examined, and orchestrated. She really tries to completely drench herself at this stage, ideally being mindful and keen as she cautiously processes the realities introduced in the picked articles. Fifth, in "Form Coding Class," she applies what she has found out about making codes and classifications to the examination papers she is perusing. Since she should consolidate the data from the examination articles into a solitary report, this task is known as memoing [12]. As she makes determinations from the significant and relevant realities uncovered by the observational exploration composed by scholastics, the inquiry, "What does the information expresses?" bothers at her viewpoints. The information examination systems used to compose this survey paper are displayed in Figure 2 [13].

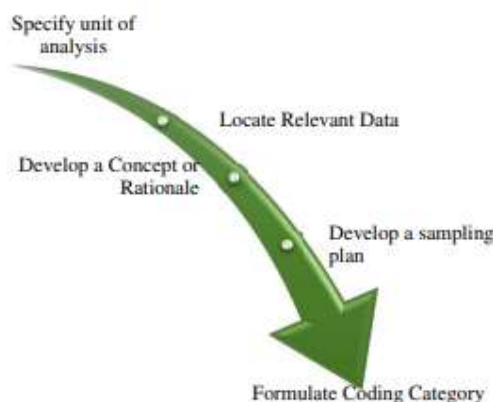


Figure 2: Periods of information investigation for article audits

#### 4. RESEARCH FINDINGS

To survey, the motivation behind the audit is to find answers for the inquiries of man-made reasoning (computer based intelligence) in language training. Concerning the exploration question presented toward the beginning of the survey, four (4) subjects have been distinguished. These subjects include:

##### **AI is used to recognize natural human speech**

By considering the programming of more precise voice acknowledgment frameworks, artificial intelligence might help specialists in the improvement of regular language frameworks. Man-made reasoning (man-made intelligence) is valuable in their exploration for recognizing worried discourse designs. Subjects were isolated into little gatherings going from three (3) to ten (10) for the trial examination [14]. All of them is remarkable, except for the way that English isn't their local tongue. Integrating simulated intelligence into their review, they found that the stage permits them to list the language strategies for dealing with especially difficult times that people use because of both mental and actual pressure. Man-made's reasoning skill to concentrate on how individuals use language in ordinary circumstances makes it a significant device in psycholinguistics. Computerized reasoning (artificial intelligence) might be prepared to emulate human correspondence around here, simplifying it, quicker, and more commonsense [15].

##### **4.1 AI amalgamate Flipped Learning Classroom for effective learning**

The examination that utilization artificial intelligence to show English makes benefit of the flipped homeroom model. More specifically, mixed study halls join computer based intelligence with flipped learning, and the subsequent enhancements to language obtaining are significant. Understudies' mentalities about learning English were better when estimated concerning self-adequacy. This turns out as expected while contrasting the exploratory gathering with the benchmark group and tracking down that the previous had more significant levels of trust in their talking skills. The trial bunch likewise displayed better listening skills analyzed than the benchmark group. Finally, research showed that understudies' extraneous inspiration — the drive to acquire rewards — was more grounded than their characteristic inspiration — the drive to simply do the tuning in and talking movement — as far as their English language learning [16].

##### **4.2 AI promotes efficiency and effectiveness in teaching English**

As per research on artificial intelligence's applications, the device might upgrade English language guidance and understudy execution. Experts find it helpful for issues relating to guidance, especially with regards to interpretation tasks [17]. As per the exploration, artificial intelligence assisted local English speakers with further developing their listening abilities and furnish their understudies with a reasonable setting where to work on communicating in the language. In reality, it appeared to be that the instrument may in a roundabout way work on the other two(2) language capacities, specifically perusing and composing. Scientists observed that understudies had the option to take part and expand their learning viewpoints when simulated intelligence was incorporated into English instructing exercises. Truly, it might motivate advancement among professionals as they try to grant the language[18].

##### **4.3 AI is used for assessment of speech**

Story expounding on a language-learning program for web voice innovation uncovers the utilization of simulated intelligence in normal discourse. Put another way, individuals may now speak with PCs without the requirement for computerized reasoning [19]. At the point when one individual utilized PC Interceded Correspondence to converse with someone else, it was previously known as human-to-human correspondence. Yet, presently, on account of computer based intelligence, we can have normal sounding discussions with machines. Furthermore, Daniels expounds by saying that one sort of man-made intelligence is Chatterbots, otherwise called Fake Conversational Morals, which permits people to banter with machines. Using a catchphrase matching methodology, it carries on smart discussions. For instance, the Chatterbots' computer based intelligence might answer properly to an individual inquiring, "What is your name?" by recovering the suitable reaction from its data set. Subsequently, in the advanced world, computer based intelligence can empower discourse assessment [20]. Figure 3 sums up the overall topics that rise out of article investigation and combination.

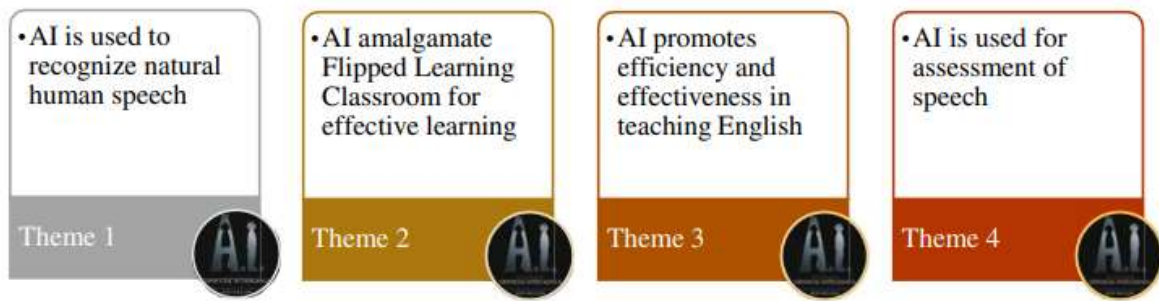


Figure 3: Created themes as ends for article surveys

## 5. RELATIONSHIP BETWEEN ARTIFICIAL INTELLIGENCE AND ENGLISH LANGUAGE TEACHING

The consolidation of man-made intelligence innovation into language learning and showing processes portrays the dynamic and various connection among artificial intelligence and English Language Educating (ELT)[21]. There are multiple manners by which this connection shows itself; every one of them help to further develop language procurement and upset regular ELT strategies. A few significant focuses that show how man-made intelligence and ELT are connected are as per the following:

1. **Personalized Learning:** Computerized reasoning takes into consideration individualized examples by changing substance in light of every understudy's assets, shortcomings, interests, and current ability level. To ensure that each understudy gets explicit assistance and criticism, man-made intelligence analyzes understudy cooperations and execution information to give customized preparing through versatile learning stages and clever coaching frameworks.
2. **Immediate Feedback and Assessment:** Understudies might get convenient assistance with their language capacities (articulation, jargon, syntax, and so on) with the utilization of man-made intelligence controlled instruments that give fast input and assessment. To work on independent learning and accelerate the method involved with learning a language, students might utilize language assessment instruments, intelligent chatbots, and mechanized evaluating frameworks to see how they veered off-track and fix it immediately.
3. **Enhanced Language Practice:** With the utilization of artificial intelligence, language activities might be made more captivating by means of the utilization of VR settings, intuitive reenactments, and language games. Understudies might rehearse conversational abilities utilizing virtual language associates and chatbots, and they can drench themselves, in actuality, language circumstances with VR innovation. This permits them to work on talking, tuning in, and collaborating with societies in English.
4. **Access and Equity:** Computerized reasoning (simulated intelligence)- driven language learning applications eliminate cost and geological impediments to top notch instruction. No matter what their area or foundation, students might interface with English language assets at their own speed utilizing artificial intelligence driven stages open whenever, anyplace. This advances fairness and consideration in ELT.
5. **Teacher Support and Professional Development:** Illustration planning, educational plan, and understudy assessment are regions where English language educators might profit from the abilities given by man-made consciousness innovation. Educators might change their showing techniques and give designated intercessions in view of bits of knowledge about understudies' learning progress and execution gave by examination controlled by man-made intelligence. What's more, artificial intelligence can assist teachers with progressing in their professions by making individualized example plans and different materials that take special care of every instructor's remarkable advantages and necessities.
6. **Innovative Pedagogical Approaches:** Imaginative educational methods that advance dynamic learning, participation, and imagination might be investigated by means of the joining of simulated intelligence in ELT. The utilization of man-made brainpower (simulated intelligence) in cooperative learning spaces, project-based learning, and friend mentoring frameworks is changing the elements of the homeroom and making learning more captivating for understudies.
7. **Research and Development:** Endeavors to propel man-made intelligence innovation and their purposes in language guidance additionally fall under the umbrella of ELT innovative work. To handle issues of

predisposition, morals, and versatility in simulated intelligence fueled language guidance, specialists and designers cooperate to find novel man-made intelligence driven arrangements, test them, and track down the best ones.

English language educating (ELT) and computerized reasoning (man-made intelligence) work connected at the hip; computer based intelligence is meaningfully altering how language is instructed and scholarly, while ELT is assisting with molding computer based intelligence driven arrangements. Further developing language guidance, giving understudies more organization, and connecting social and semantic holes in an undeniably globalized society are potential results of this relationship's continuous improvement [22].

## **6. CHALLENGES AND CONSIDERATIONS**

In spite of the undeniable advantages, there are sure difficulties and issues with involving computer based intelligence in ELT. One worry with artificial intelligence calculations is the potential for predisposition; these frameworks may accidentally incline toward some language varieties over others or propagate biases [23]. Fair language schooling must be accomplished by means of tending to artificial intelligence inclination through changed information portrayal, deliberate calculation plan, and consistent assessment. Worries about student organization and information security are two extra moral contemplations with man-made intelligence driven language learning. Instructors have a scarce difference to walk while attempting to involve understudy information for customized training while likewise safeguarding understudies' protection. Moreover, stresses over the job of teachers and the possibility of their substitution by computer based intelligence experts are provoked by the dependence on simulated intelligence innovation in the instructive cycle [24]. Instructors additionally need progressing proficient advancement amazing chances to assist them with successfully coordinating computer based intelligence into their examples. Instructors need to get the vital computerized proficiency abilities to utilize artificial intelligence advancements, survey information bits of knowledge, and foster convincing growth opportunities that advance computer based intelligence driven schooling.

## **7. CONCLUSION**

With regards to showing English as a subsequent language, man-made consciousness has sweeping and complex results, with numerous positive and adverse results to consider. By empowering vivid encounters, conveying customized instructing, and extending admittance to incredible schooling, man-made intelligence can possibly totally change language learning. To completely involve simulated intelligence in ELT, nonetheless, concerns like bias, morals, and educator readiness should be tended to. In a capable and cooperative manner, teachers might improve language opportunities for growth and give understudies the devices they need to become capable in English by embracing computer based intelligence.

## **REFERENCES**

- [1]. Fraenkel J R, Wallen N E, & Hyun H H (2011) How to design and evaluate research in education. New York: McGraw-Hill.
- [2]. Maguire M, Delahunt B (2017) Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *AISHE-J: The All Ireland Journal of Teaching and Learning in Higher Education*, 9 (3), 3351-33514
- [3]. Green J, Willis K, Hughes E, Small R, Welch N, Gibbs L, Daly J (2007) Generating best evidence from qualitative research: the role of data analysis. *Australian and New Zealand journal of public health*, 31(6), 545-550.
- [4]. Hesse-Biber S (2010) Analyzing qualitative data: With or without software. Boston College, Massachusetts, US
- [5]. Anikushina V, Taratukhin V, von Stutterheim C (2018) Natural Language Oral Communication in Humans Under Stress. *Linguistic Cognitive Coping Strategies for Enrichment of Artificial Intelligence. Procedia computer science*, 123, 24-28.
- [6]. Wei F (2018) Research on the Improvement of English Learning by Artificial Intelligence (AI). *Journal of Advanced Oxidation Technologies*, 21(2), 392-395
- [7]. Daniels P (2015) Using Web Speech Technology with Language Learning Applications. *JALT CALL Journal*, 11(2), 177-187.
- [8]. Chandra, K. Ram, M. Ramachandran, and Soniya Sriram Kurinjimalar Ramu. "Exploring The Possibilities of Web Based Learning." *Contemporaneity of Language and Literature in The Robotized Millennium 4.1* (2022): 19-27.

- [9]. Chandra, K. Ram, Et Al. "Recent Trends in Workplace Learning Methodology." *Contemporaneity of Language and Literature in the Robotized Millennium 4.1* (2022): 28-36.
- [10]. K Ram Chandra, Bbrg Vijaya Lakshmi, Mrs G Rani, Raghavendra Kumar. "Farmer Digital Marketing System" *Solid State Technology*, Vol. 63, No. 5 (2011), 3250-3257.
- [11]. K Ram Chandra. "Hetero-Balancing Approach to Curriculum Planning Using the SystemicFunctional Analysis" *Proceedings of Isfc 35: Voices Around the Worl*
- [12]. Arun, Bernard Edward Swamidoss, Venkatesan (2023), *Impact of Hospitality Services on Tourism Industry in Coimbatore District*, *Journal of Namibian Studies - History Politics Culture*, Volume 33, Special Issue 3, Pp. 2381-2393.
- [13]. Vijai, C., Bhuvaneswari, L., Sathyakala, S., Dhinakaran, D. P., Arun, R., & Lakshmi, M. R. (2023). The Effect of Fintech on Customer Satisfaction Level. *Journal of Survey in Fisheries Sciences*, 10(3S),6628-6634.
- [14]. Singh, B., Dhinakaran, D. P., Vijai, C., Shajahan, U. S., Arun, R., & Lakshmi, M. R. (2023). Artificial Intelligence in Agriculture. *Journal of Survey in Fisheries Sciences*, 10(3S), 6601-6611.
- [15]. Arun, R. "A Study on the Performance of Major Spices in India." *Recent Trends in Arts, Science, Engineering and Technology* (2018): 149.
- [16]. Edson Nirmal Christopher, Sivakumar, Arun ,Umamaheswari (2023) *Iiimmunoinformatic Study for a Peptide Based Vaccine Against Rabies Lyssavirus Rabv Strain Pv*, *European Chemical Bulleting*, 12(special issue 9), 631– 640.
- [17]. Bapat, G., Ravikumar, C., & Shrivallabh, S. (2021). An exploratory study to identify the important factor of the university website for admissions during covid-19 crisis. *Journal of Engineering Education Transformations*, 35(1), 116-120.
- [18]. Chandramouli Shivaratri, Prakash, Arun, Krishna Mayi, Kavitha, Sivaperumal (2023), *Clothing Products Purchases through Social Media Advertisements and the Problems Involved*, *Remittances Review*, Vol. 8, Issue 4, Pp. 3260-3268.
- [19]. P, S., Prakash, K. C., Arun, R., C, N., Kousalya, M., & Sivaperumal, K. (2023). Green HRM Practices and the Factors Forcing it: A Study on Health Care Entities in Chennai. *International Journal of Professional Business Review*, 8(9), e03773.
- [20]. Arumugam, T., Arun, R., Natarajan, S., Thoti, K. K., Shanthi, P., & Kommuri, U. K. (2024). Unlocking the Power of Artificial Intelligence and Machine Learning in Transforming Marketing as We Know It. In S. Singh, S. Rajest, S. Hadoussa, A. Obaid, & R. Regin (Eds.), *Data-Driven Intelligent Business Sustainability* (pp. 60-74). IGI Global. <https://doi.org/10.4018/979-8-3693-0049-7.ch005>
- [21]. Bapat, G. S., & Gankar, S. S. (2019). Students recruitment strategies at higher educational institutes: A new world perspective–A review of the literature on higher education marketing. *International Journal of Advance Research, Ideas and Innovations in Technology*, 5(3), 1860- 1864.
- [22]. Dr. M. Esther Kalyani P. Hemalatha, Dr. K Ram Chandra, Dr. Shakila Azim, Dr. B. Annapurna, Dr. V. Nagalakshmi. "The Element of Emotional Intelligence and Their Impact on Social Relation". *International Journal of Early Childhood Special Education*. Vol.14 No.03 (2022), 7.
- [23]. Sharma, S. K., and A. K. Sharma. "Effect of Bi-Parabolic Thermal and Thickness Variation on Vibration of Visco-Elastic Orthotropic Rectangular Plate." *Journal of Advanced Research in Manufacturing, Material Science and Metallurgical Engineering* 1.2 (2014): 26-38.
- [24]. Kumar Sharma, A., and S. K. Sharma. "Vibration computational of visco-elastic plate with sinusoidal thickness variation and linearly thermal effect in 2D." *Journal of Advanced Research in Applied Mechanics & Computational Fluid Dynamics* 1.1 (2014)