# Plea bargaining a contrastive investigation with reference to India and UK

### Bhumika Bhardwaj

LL.M. Scholar, Galgotias University, Greater Noida

*Abstract:* The Administrative Framework for Regulating Plea Dealing in India is provided by the Criminal Procedure Code, 1973. The enormous backlog of criminal cases and the growing number of prisoners being held on preliminary charges have both caused problems for the Indian criminal justice system. The slow, uncomfortable, and expensive preliminary technique typically results in an excessive delay in dismissing the criminal proceedings. In order to address the aforementioned issues, the criminal code was modified in 2005 to incorporate plea bargaining as a productive ADR strategy in India. This study aims to describe the development of plea bargaining in India's legal system as well as how it is applied in the criminal courts. In England, a guilty plea almost always results in a conviction. Innocent defendants may feel pressured to enter guilty pleas because the criminal court system provides strong incentives for them to do so. As a result, it's very much essential that the system of criminal justice has a robust appeals procedure designed to discover and overturn wrongful convictions following a plea of guilty... This research paper contends that, regrettably, it is improbable that this will occur given the present appeal mechanism and the Court of Appeal's attitude toward guilty pleas. Furthermore, it is claimed that the inability to address the possibility of erroneous conviction through a guilty plea at different instances within the criminal justice process.

### Key Words- Criminal Justice System, ADR, Plea Bargaining, Court of appeal

### INTRODUCTION

"As late as the eighteenth century, ordinary jury trial at common law was a judge-dominated, lawyer-free procedure conducted so rapidly that plea bargaining was unnecessary. Thereafter, the rise of adversary procedure and the law of evidence injected vast complexity into jury trial and made it unworkable as a routine dispositive procedure. A variety of factors, some quite fortuitous, inclined nineteenth century common law procedure to channel the mounting caseload into non-trial plea bargaining procedure rather than to refine its trial procedure as contemporary Continental legal systems was doing."

Plea negotiations are fundamentally based on the Latin phrase "Nolo Contendere," which literally translates as "I do not desire to contend." According to Martin (2003), "Plea bargaining is a pre-trial negotiation or agreement between the prosecution and defence by which the accused changes his plea from not guilty to guilty in exchange for an offer by the prosecution or when the judge has informally let it be known that he will minimise the sentence if accused pleads guilty." When the prosecution proposes to drop a more serious charge against the defendant in exchange for a guilty plea to a lesser charge, this is an example of a plea bargain.

According to Feeley (1982), plea bargaining represents a clear departure from the adversarial process and is actually a form of "bureaucratic justice" in which the prosecutor and the defence are jointly obligated to pursue organisational convenience, financial self-interest, and the need to keep the legal system functioning at the expense of their moral obligations to seek the truth and ensure justice.

The accused person's plea is a major consideration. The defendant, or someone on his or her behalf, makes a formal declaration to the court in response to the accusation (Martin, 2003). Either a horizontal or a vertical plea is possible. Vertical deal pleas are based on whether or not the allegations are less severe, while horizontal deal pleas are based on the number of charges.

Every time a plea bargain is reached, it must be agreed upon what facts support the guilty verdict (Palermo et al, 1998). Plea negotiations can take the following forms: I explicit bargaining, where the prosecutor makes a specific sentence recommendation and the judge indicates the sentence he has in mind to impose; (ii) implicit bargaining, where the accused enters a guilty plea while taking into account the possibility of sentence reductions; and (iii) negotiated diversion, where the judge issues warnings or reprimands in exchange for some form of restitution.

More specifically, a plea deal are following types:

Fact bargaining, where an agreement is reached for the selective layout of facts in exchange for a guilty plea, and charge bargaining, where one or more charges are dropped in exchange for a guilty plea to one of the charges, are both examples of this. Another version is when the offender, for instance, consents to a punishment while denying guilt or when consenting to a punishment while maintaining innocence.

Today's felony justice system's raw facts are no longer a secret to anyone. The length of the proceedings harasses the accused, the victims, and the witnesses many times. Different tactics and methods have been employed in different

jurisdictions to lighten the load of trials, assure swift resolution of cases, and reduce party harassmentIn an effort to alleviate the problems of overcrowded prisons, overwhelmed courts, and unusually long waiting times, plea bargaining has been made available.

A plea bargain will start with a prompt or trigger from either side indicating that it is ready to have a conversation and come to an understanding over pleas and charges. A proposal to admit guilt to a specific accusation is frequently made during the procedure (by defence counsel, initially, and then by the defendant). The 'terms' of the plea deal will next be discussed in detail, centred on a review of the prosecution's evidence. This may include the number and nature of the charges, the sentence (including the severity of the punishment or period of imprisonment), and the total amount of restitution.

The prosecutor may use sentencing guidelines while negotiating the punishment, which improves procedure predictability and openness. An agreement might be entered into either before or after charges are brought, and, in principle, up to the precise minute before a case reaches the court door. The sooner a plea is given, nevertheless, the greater the procedural savings and, consequently, the defendant's credit for cooperation (in terms of a lesser punishment).

### Plea bargaining in India

Plea bargaining was first implemented in India under the provisions of the Criminal Law (Amendment) Act, 2005. This amendment adds a new Chapter XXI A to the Code of Criminal Procedure, as amended.

Until recently, "plea bargaining" was not even a term accepted by Indian criminal law. However, references to Sections 208 (1) of the Motor Vehicles Act of 1988 and 206 (1) and 206 (3) of the Rules of Criminal Procedure are acceptable. These clauses provide the accused the option to admit guilt for minor offences, pay little penalties, and then have the case dismissed.

In its 142nd, 154th, and 177th reports, the Law Commission of India recommended the adoption of "Plea Bargaining." The Law Commission highlighted that The American system has shown that pleading bargaining can be utilised to clear up case backlogs and move the criminal court system along more swiftly.

According to the Law Commission's proposal, In cases of offences carrying terms of a maximum of seven years in prison, a fresh section on plea bargaining has been established to allow for plea bargaining. to the Crl.R.C. and is now in force as of July 5, 2006. The Act has the advantage of restricting the offences for which a mutually accepted agreement can be made. 11Secondly, the judge exercises supervisory control over the proceedings and is not entirely cut off. As a result, administrative control over the procedure for giving plea bargains is assured, at least theoretically. Thirdly, the Act guarantees that repeat criminals won't have access to such a chance Fourth, the law's lack of a standard appeal from the decision in such a scenario is a step towards speeding up the resolution of the case. The right to appeal is not provided for under Article 136 of the Constitution, but the Supreme Court has wide discretion to issue extraordinary permission. there is a procedure for evaluating unlawful or unethical deals. Additionally, it is not obvious if the victim of the offence may apply for the remedies provided by Articles 226 and 227 of the Constitution.

## ROLE OF VARIOUS ACTORS IN THE PROCESS OF PLEA BARGAIN

The Indian judicial system has attempted to establish a threeway framework for plea bargaining. In contrast to the American proposal, which proposes an out-of-court settlement, the Indian option suggests using the court as an adjudicator between the parties, guaranteeing voluntary behaviour. This was done because the public has a lot of faith in judicial trials, which they believe will prevent either party from unfairly enriching themselves and ensure that the proceedings proceed in a fair and impartial manner, and because the Constitution requires the Court to serve as a sentinel on the qui vie guarding the fundamental rights guaranteed by the Constitution. The court conducts the interview behind closed doors and discreetly to ensure the accused was not coerced into entering a guilty plea. If the lawsuit was brought by the police, the officer who investigated the report would get a cut of the settlement money. There appears to be no role for a prosecutor.

#### <u>Plea bargaining in United Kingdom</u>

The first instances of plea bargaining are found in English courts, according to Cockburn (1978). Between 1587 and 1590, there were more guilty pleas due to an increase in caseload. Down-charging was used as a sort of negotiation, and the defendant pleaded guilty to petit theft rather than burglary after admitting culpability below the legal limit. Fisher (2003) describes the early 19th-century plea bargaining evidence that Cottu (1822) reported on.

Researchers have traced the beginnings of plea bargaining in England to the confluence of caseload difficulties (particularly in urban settings) and changes in trial process that rendered trials so time-consuming that they could no longer be employed as a normal practise.

The sudden "altercation" between accuser and accused that it replaced took significantly longer than the lawyer-led questioning and cross-examination of witnesses. More time was required to accommodate the lawyers' procedural motions and remarks. Judges created regulations to control the attorneys as they began to dominate the trial. These rules, particularly the law of evidence and the law of jury instruction, increased the time requirements for the trial.

Plea negotiations have always taken place in England and Wales behind closed doors. Criminal trials have historically featured informal plea deals using the sentencing discount, reduced or lighter charges, and Goodyear early predictions of penalty. But in England and Wales, negotiated plea deals are the first that are openly controlled and formalised.

A Case Study with R v. Turner, in which plea bargaining was referred to as "the thorny topic of so-called plea bargaining," represents Distance that the British courts have gone to dealing with the subject. The Turner guidelines that resulted from this decision include, among other things, the following:

"Counsel must be completely free to do what is his duty, namely to give the accused the best advice he can – if need be in strong terms. This will often include advice that a plea of guilty, showing an element of remorse, is a mitigating

### factor which may well enable the court to give a lesser sentence than would otherwise be the case."

It was also decided that any discussions should only take place between the court and the attorneys for both parties. It is essential that justice be carried out in public settings wherever feasible. Only in entirely exceptional circumstances, according to Att.-GenReference .'s (No. 44 of 2000) (R. v. Peverett), could counsel approach the judge in his chambers to discuss pleas or punishment.

The Turner decision also specified that the judge should never reveal the punishment he intended to inflict, however the Criminal Justice Act of 2003 has replaced this norm. According to Schedule 3 of the Act, if a defendant were to Immediately plead guilty., he might ask for an indication of the maximum penalty. If a hint is offered, the court must abide by it. Section 144, "Reduction of sentences for guilty pleas," of the Criminal Justice Act of 2003 specifically outlines the judge's authority to reduce penalties in cases of guilty pleas.

(1) A court must consider the following factors when deciding what punishment to impose on a defendant who has admitted guilt to an offence in proceedings before it or another court:

(A) the stage in the criminal case procedures at which the offender declared his intention to enter a guilty plea; and (B) the circumstances surrounding such declaration.

(2) Nothing in subsection (2) of sections 110 or 111 of the Sentencing Act prohibits the court from imposing a sentence that is at least 80% of the one specified in that subsection after considering any factor mentioned in subsection (1) of this section If you have been convicted of a crime for which a punishment is to be inflicted under that subsection.

This is an exact replication of Section 152 of the Powers of Criminal Courts (Sentencing) Act, 2000, which gives the judge authority to lighten the the penalty for pleading guilty at a tender point in the trial. Since the first release of the Sentencing Guidelines Council's Reduction in Sentence for a Guilty Plea Guideline in 2004 the sentence reduction has become more organised. Every defendant will be made acutely aware of the fact that, in exchange for a guilty plea, he can anticipate a sentence reduction of up to one-third from that which he would receive after being found guilty at trial. Those who plead guilty as soon as possible are eligible for the largest reductions.

The prosecutor's ability to reduce or dismiss charges in return for a guilty plea facilitates charge bargains, another frequent method of case resolution. Charge negotiation mostly occurs between the crown attorneys and solicitors in the magistrates' court, taking centre stage. This has become a new tendency, particularly in cases of significant fraud offences. This is completely in accordance with the Crown Prosecutors' Code of Conduct. Fact-based plea agreements allow the prosecution and the defendant to agree on a factual foundation for which both parties may accept a guilty plea.

The court of appeal in Beswick made an effort to control these agreements by stating that the prosecution should not consent to a fact bargain that would result in a sentence based on a false or inaccurate set of facts.

Before accepting guilty pleas, the Crown Prosecutor's Code offers the following recommendations: -

1. The defendants could only wish to admit guilt to some of the allegations. As an alternative, given that they are admitting to only a portion of the offence, they can want to enter a plea to a separate, perhaps less serious, charge.

2. Prosecutors should only accept a guilty plea from a defendant where there are aggravating factors and they are confident the court can impose an appropriate sentence. Prosecutors should never accept a guilty plea because it is convenient.

3. Third, prosecutors must ensure that the victim's interests and, when possible, the victim's opinion, or, in appropriate instances, the victim's family's opinion, are considered when deciding whether or not accepting the plea is in the public interest. The prosecutor, though, has the last word.

4. The court must be informed of the basis for any plea that is submitted or accepted. Before sentencing, the court should be asked to hear evidence to determine what happened in situations when a defendant enters a guilty plea to the charges but on the basis of facts that are different from the prosecution's case.

5. Prosecutors will evaluate whether a prosecution is necessary for an offence when a defendant has previously said that they would seek the court to consider it while sentencing but later fails to confess it in court. The prosecution of such crime may be subject to additional assessment, in collaboration with the police or other investigators whenever feasible, the prosecutor should inform the defence attorney and the court.

6. When contemplating pleas that might allow the defendant to escape the imposition of a required minimum sentence, special attention must be exercised. Prosecutors must also take into account the fact that some offences allow for the issuance of supplementary orders while others do not when accepting plea agreements.

### Plea bargaining in fraud cases

In cases prosecuted by the severe fraud office, the offender must enter a plea before the case goes to trial. The Crown Court's plea and case management hearing is the first opportunity to enter such a plea. Pre-charge negotiating has become a popular practise in certain situations. The justification given is that fraud cases are hard to identify, complex to investigate, and expensive to prosecute. Therefore, both jurors and victims could profit. The attorney general's guidelines, which capture the heart of the system, allow the prosecution and the accused criminal to discuss and agree on the foundation for the plea before filing charges.

It has four drawbacks. First off, there is no outright prohibition against using such admissions; rather, the standards outline the situations in which they cannot be utilised. Second, despite supplying information, the defendant is kept in the dark about the prosecution's case. Third, the judge, not the prosecutor, is the one who ultimately determines the punishment. Fourthly, there can never be an assurance that an innocent person won't cave in to pressure to confess.

### Juxtaposition between the U.K and the Indian Plea Bargaining

In the UK, plea bargaining is used in a somewhat different way. It takes the form of the judge implying sentencing reduction on certain moments while speaking with both

parties' attorneys. It does not entail official talks between the attorneys for the parties, when the accused chooses to enter a guilty plea on the promise of a less sentence. Except in one circumstance, the judge should never reveal the punishment he plans to impose. However, there are situations in which a judge should be entitled to rule that a certain form of punishment shall be imposed regardless of the accused's guilt or innocence. When such a conversation about punishment has occurred, the defence attorney should make it known to the accused and, with the exception of any information he should not be aware of, like cancer, notify him of what happened.

Therefore, plea bargaining is only allowed in England and Wales to the degree that the prosecution and the defence can come to an agreement whereby the defendant will admit guilt to some counts while the prosecution will dismiss the others. The revised Indian criminal law incorporates elements of the US model. In the decisions of Brady v. United States and Santobello v. New York, the US Supreme Court examined the constitutional validity and the crucial part it plays in the resolution of criminal cases. The UK system has the advantage of maintaining a balance between the need to quickly resolve cases and the right of the accused to remain silent and select his own plea.

A lesser sentence cannot be offered in exchange for a guilty plea, limiting the prosecutor's ability to intervene and exert pressure. Contrary to England, where it is dispersed, India's legislation on plea bargaining is codified. The mutually suitable resolution must be established in accordance with the code of criminal process before the judgement may be issued, which is not particularly covered by English law. Contrary to Indian law, plea deals are available in England for all types of crimes, not simply those carrying a maximum sentence of seven years in jail.

Plea bargaining is never an option for crimes against women, children under 14, and those with poor socioeconomic status, according to Section 265A. Whereas in the UK, the first instances in which formal plea bargaining was used were fraud cases (socio-economic offences).

In India, as previously said, the judge plays a very important role in determining whether the accused has willingly and freely agreed to enter a guilty plea. In England, the prosecutor and judge share responsibility for this task. The judge's primary responsibility in cases of guilty pleas is sentence. Additionally, the U.K. sentencing guidelines have specified in several clauses the potential reduction in penalty the accused may face after entering a guilty plea. The benefit of this provision is that it lessens the misuse of the judges' discretion.

### CONCLUSION

Plea bargaining is more of a convenience and mutual advantage method than it is a moral, legal, or constitutional matter. A fundamental overhaul of We require a functioning criminal justice system.. It may be a welcome shift, but only if there is a chance for an efficient and affordable settlement of the cases. Plea bargaining loses a lot of its appeal if the criminal justice system's only goal is to bring offenders back into society by subjecting them to predetermined jail sentences. The potential of ethical behaviour in these negotiations is increased by subjecting this procedure to court review. Plea negotiations are a necessary part of the adversarial system in the current climate. The plea-bargaining method, which the police, judges, and bar must first comprehend and attempt to implement, might, nevertheless, be effectively employed to make use of the current procedure and to secure the benefits from these improvements. Instead of viewing plea negotiations as a danger to their career, defending attorneys should urge the litigant to choose this option.

It goes without saying that developing the skills of the police and courts should be a top priority and a must before trying out plea bargains. We can give it a chance to live. According to US experience, plea bargaining is still an ill-defined notion and a dubious practise. Plea bargaining may be regarded as one of the necessary steps for accelerating caseload disposal since the overburdening of courts with a backlog of criminal cases is endangering the system's fundamentals. After giving this mechanism a full test, it should be thoroughly examined to see how it operates, how it affects the crime and conviction rates, and finally how it impacts the rule of law.

### **REFERENCES**

- [1]. Understanding the short history of PLEA-Bargaining John H. Langbein
- [2]. A Nolo contendere plea is also referred to as a plea of No Contest.
- [3]. Plea Bargaining and Its History, Albert Al Schuler, 1979
- [4]. When deliberating a case, jurors should use the guidelines outlined in the jury instructions. In order to protect their interests and prevent anything unfair from being stated, the judge often makes them the focus of conversation about the case and how they are going to determine who is guilty.
- [5]. [2005] EWCA Crim 888, [2005] 1 WLR 2532
- [6]. At least two of the following characteristics indicate a substantial or complicated fraud to the SFO: case involves an amount greater than £500,000
- [7]. Case : R v Turner [1970] 2 QB 321
- [8]. Case: R v Peverett [2001] 1 Cr.App.R. 27.
- [9]. S-110 Minimum of seven years for third class A drug trafficking offence.
- [10]. s-111 Minimum of three years for third domestic burglary.
- [11]. <u>http://sentencingcouncil.judiciary.gov.uk/sentencing-guidelines.html</u>
  - [12]. Dalal, S., Poongodi, M., Lilhore, U. K., Dahan, F., Vaiyapuri, T., Keshta, I., ... & Simaiya, S. Optimized LightGBM model for security and privacy issues in cyber-physical systems. Transactions on Emerging Telecommunications Technologies, e4771.
  - [13]. Dalal, S., Manoharan, P., Lilhore, U. K., Seth, B., Simaiya, S., Hamdi, M., & Raahemifar, K. (2023). Extremely boosted neural network for more accurate multi-stage Cyber attack prediction in cloud computing environment. Journal of Cloud Computing, 12(1), 1-22.

- [14]. Malik, A., Onyema, E. M., Dalal, S., Kumar, U., Anand, D., Sharma, A., & Simaiya, S. (2023). Forecasting students' adaptability in online entrepreneurship education using modified ensemble machine learning model. Array, 100303.
- [15]. Shetty, S., & Dalal, S. (2022, December). Bi-Directional Long Short-Term Memory Neural Networks for Music Composition. In 2022 Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT) (pp. 1-6). IEEE.
- [16]. Dalal, S. (2023, April). The Smart Analysis of Poisson Distribution Pattern Based Industrial Automation in Industry 4.0. In 2023 International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE) (pp. 1-6). IEEE.
- [17]. Dalal, S., Seth, B., Radulescu, M., Cilan, T. F., & Serbanescu, L. (2023). Optimized Deep Learning with Learning without Forgetting (LwF) for Weather Classification for Sustainable Transportation and Traffic Safety. Sustainability, 15(7), 6070.
- [18]. Onyema, E. M., Lilhore, U. K., Saurabh, P., Dalal, S., Nwaeze, A. S., Chijindu, A. T., ... & Simaiya, S. (2023). Evaluation of IoT-Enabled hybrid model for genome sequence analysis of patients in healthcare 4.0. Measurement: Sensors, 26, 100679.
- [19]. Dalal, S., Manoharan, P., Lilhore, U. K., Seth, B., Simaiya, S., Hamdi, M., & Raahemifar, K. (2023). Extremely boosted neural network for more accurate multi-stage Cyber attack prediction in cloud computing environment. Journal of Cloud Computing, 12(1), 1-22.
- [20]. Dalal, S., Goel, P., Onyema, E. M., Alharbi, A., Mahmoud, A., Algarni, M. A., & Awal, H. (2023). Application of Machine Learning for Cardiovascular Disease Risk Prediction. Computational Intelligence and Neuroscience, 2023.
- [21]. Dalal, S., Seth, B., Radulescu, M., Secara, C., & Tolea, C. (2022). Predicting Fraud in Financial Payment Services through Optimized Hyper-Parameter-Tuned XGBoost Model. Mathematics, 10(24), 4679.
- [22]. Dalal, S., Onyema, E. M., & Malik, A. (2022). Hybrid XGBoost model with hyperparameter tuning for prediction of liver disease with better accuracy. World Journal of Gastroenterology, 28(46), 6551-6563.
- [23]. Edeh, M. O., Dalal, S., Obagbuwa, I. C., Prasad, B. V. V., Ninoria, S. Z., Wajid, M. A., & Adesina, A. O. (2022). Bootstrapping random forest and CHAID for prediction of white spot disease among shrimp farmers. Scientific Reports, 12(1), 1-12.
- [24]. Zaki, J., Nayyar, A., Dalal, S., & Ali, Z. H. (2022). House price prediction using hedonic pricing model and machine learning techniques. Concurrency and Computation: Practice and Experience, 34(27), e7342.

- [25]. Dalal, S., Onyema, E., Romero, C., Ndufeiya-Kumasi, L., Maryann, D., Nnedimkpa, A. & Bhatia, T. (2022). Machine learning-based forecasting of potability of drinking water through adaptive boosting model. Open Chemistry, 20(1), 816-828. https://doi.org/10.1515/chem-2022-0187
- [26]. Onyema, E. M., Dalal, S., Romero, C. A. T., Seth, B., Young, P., & Wajid, M. A. (2022). Design of Intrusion Detection System based on Cyborg intelligence for security of Cloud Network Traffic of Smart Cities. Journal of Cloud Computing, 11(1), 1-20.
- [27]. Dalal, S., Onyema, E. M., Kumar, P., Maryann, D. C., Roselyn, A. O., & Obichili, M. I. (2022). A Hybrid machine learning model for timely prediction of breast cancer. International Journal of Modeling, Simulation, and Scientific Computing, 2023, 1-21.
- [28]. Dalal, S., Seth, B., Jaglan, V., Malik, M., Dahiya, N., Rani, U., ... & Hu, Y. C. (2022). An adaptive traffic routing approach toward load balancing and congestion control in Cloud–MANET ad hoc networks. Soft Computing, 26(11), 5377-5388.
- [29]. Edeh, M. O., Dalal, S., Dhaou, I. B., Agubosim, C. C., Umoke, C. C., Richard-Nnabu, N. E., & Dahiya, N. (2022). Artificial Intelligence-Based Ensemble Learning Model for Prediction of Hepatitis C Disease. Frontiers in Public Health, 847.
- [30]. Seth, B., Dalal, S., Jaglan, V., Le, D. N., Mohan, S., & Srivastava, G. (2022). Integrating encryption techniques for secure data storage in the cloud. Transactions on Emerging Telecommunications Technologies, 33(4), e4108.
- [31]. Malik, M., Nandal, R., Dalal, S., Maan, U., & Le, D. N. An efficient driver behavioral pattern analysis based on fuzzy logical feature selection and classification in big data analysis. Journal of Intelligent & Fuzzy Systems, 43(3), 3283-3292.
- [32]. Malik, M., Nandal, R., Dalal, S., Jalglan, V., & Le, D. N. (2022). Deriving driver behavioral pattern analysis and performance using neural network approaches. Intelligent Automation & Soft Computing, 32(1), 87-99.
- [33]. Shetty, S., & Dalal, S. (2022, December). Bi-Directional Long Short-Term Memory Neural Networks for Music Composition. In 2022 Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT) (pp. 1-6). IEEE.
- [34]. Onyema, E. M., Shukla, P. K., Dalal, S., Mathur, M. N., Zakariah, M., & Tiwari, B. (2021). Enhancement of patient facial recognition through deep learning algorithm: ConvNet. Journal of Healthcare Engineering, 2021.
- [35]. Dalal, S., & Khalaf, O. I. (2021). Prediction of occupation stress by implementing convolutional neural network techniques. Journal of Cases on Information Technology (JCIT), 23(3), 27-42.
- [36]. Dalal, S., Jaglan, V., & Le, D.-N. (Eds.). (2021). Green Internet of Things for Smart Cities: Concepts,

Implications, and Challenges (1st ed.). CRC Press. https://doi.org/10.1201/9781003032397.

- [37]. Dahiya, N., Dalal, S., & Jaglan, V. (2021). 8 Mobility in Green Management IoT. Green Internet of Things for Smart Cities: Concepts, Implications, and Challenges, 125.
- [38]. Dahiya, N., Dalal, S., & Jaglan, V. (2021). 7 Efficient Green Solution. Green Internet of Things for Smart Cities: Concepts, Implications, and Challenges, 113.
- [39]. Seth, B., Dalal, S., & Dahiya, N. (2021). 4 Practical Implications. Green Internet of Things for Smart Cities: Concepts, Implications, and Challenges, 61.
- [40]. Malik, M., Nandal, R., Dalal, S., Jalglan, V., & Le, D. N. (2021). Driving pattern profiling and classification using deep learning. Intelligent Automation & Soft Computing, 28(3), 887-906.
- [41]. Jindal, U., Dalal, S., Rajesh, G., Sama, N. U., Jhanjhi, N. Z., & Humayun, M. (2021). An integrated approach on verification of signatures using multiple classifiers (SVM and Decision Tree): A multi-classification approach.
- [42]. Seth, B., Dalal, S., Le, D. N., Jaglan, V., Dahiya, N., Agrawal, A., ... & Verma, K. D. (2021). Secure Cloud Data Storage System Using Hybrid Paillier– Blowfish Algorithm. Computers, Materials & Continua, 67(1), 779-798.
- [43]. Vijarania, M., Dahiya, N., Dalal, S., & Jaglan, V. (2021). WSN Based Efficient Multi-Metric Routing for IoT Networks. In Green Internet of Things for Smart Cities (pp. 249-262). CRC Press.
- [44]. Goel, M., Hayat, A., Husain, A., & Dalal, S. (2021). Green-IoT (G-IoT) Architectures and Their Applications in the Smart City. In Green Internet of Things for Smart Cities (pp. 47-59). CRC Press.
- [45]. Chawla, N., & Dalal, S. (2021). Edge AI with Wearable IoT: A Review on Leveraging Edge Intelligence in Wearables for Smart Healthcare. Green Internet of Things for Smart Cities, 205-231.
- [46]. Dahiya, N., Dalal, S., & Jaglan, V. (2021). Efficient Green Solution for a Balanced Energy Consumption and Delay in the IoT-Fog-Cloud Computing. In Green Internet of Things for Smart Cities (pp. 113-123). CRC Press.
- [47]. Dahiya, N., Dalal, S., & Jaglan, V. (2021). Mobility Management in Green IoT. In Green Internet of Things for Smart Cities (pp. 125-134). CRC Press.
- [48]. Seth, B., Dalal, S., & Dahiya, N. (2021). Practical Implications of Green Internet of Things (G-IoT) for Smart Cities. In Green Internet of Things for Smart Cities (pp. 61-81). CRC Press.
- [49]. Dalal, S., Agrawal, A., Dahiya, N., & Verma, J. (2020, July). Software Process Improvement Assessment for Cloud Application Based on Fuzzy Analytical Hierarchy Process Method. In International Conference on Computational Science and Its Applications (pp. 989-1001). Springer, Cham.
- [50]. Seth, B., Dalal, S., Jaglan, V., Le, D. N., Mohan, S.,& Srivastava, G. (2020). Integrating encryption

techniques for secure data storage in the cloud. Transactions on Emerging Telecommunications Technologies.

- [51]. Hooda, M., & Shravankumar Bachu, P. (2020). Artificial Intelligence Technique for Detecting Bone Irregularity Using Fastai. In International Conference on Industrial Engineering and Operations Management Dubai, UAE (pp. 2392-2399).
- [52]. Arora, S., & Dalal, S. (2019). An optimized cloud architecture for integrity verification. Journal of Computational and Theoretical Nanoscience, 16(12), 5067-5072.
- [53]. Arora, S., & Dalal, S. (2019). Trust Evaluation Factors in Cloud Computing with Open Stack. Journal of Computational and Theoretical Nanoscience, 16(12), 5073-5077.
- [54]. Shakti Arora, S. (2019). DDoS Attacks Simulation in Cloud Computing Environment. International Journal of Innovative Technology and Exploring Engineering, 9(1), 414-417.
- [55]. Shakti Arora, S. (2019). Integrity Verification Mechanisms Adopted in Cloud Environment. International Journal of Engineering and Advanced Technology (IJEAT), 8, 1713-1717.
- [56]. Sudha, B., Dalal, S., & Srinivasan, K. (2019). Early Detection of Glaucoma Disease in Retinal Fundus Images Using Spatial FCM with Level Set Segmentation. International Journal of Engineering and Advanced Technology (IJEAT), 8(5C), 1342-1349.
- [57]. Sikri, A., Dalal, S., Singh, N. P., & Le, D. N. (2019). Mapping of e-Wallets With Features. Cyber Security in Parallel and Distributed Computing: Concepts, Techniques, Applications and Case Studies, 245-261.
- [58]. Seth, B., Dalal, S., & Kumar, R. (2019). Hybrid homomorphic encryption scheme for secure cloud data storage. In Recent Advances in Computational Intelligence (pp. 71-92). Springer, Cham.
- [59]. Seth, B., Dalal, S., & Kumar, R. (2019). Securing bioinformatics cloud for big data: Budding buzzword or a glance of the future. In Recent advances in computational intelligence (pp. 121-147). Springer, Cham.
- [60]. Jindal, U., & Dalal, S. (2019). A hybrid approach to authentication of signature using DTSVM. In Emerging Trends in Expert Applications and Security (pp. 327-335). Springer, Singapore.
- [61]. Le, D. N., Seth, B., & Dalal, S. (2018). A hybrid approach of secret sharing with fragmentation and encryption in cloud environment for securing outsourced medical database: a revolutionary approach. Journal of Cyber Security and Mobility, 7(4), 379-408.
- [62]. Sikri, A., Dalal, S., Singh, N. P., & Dahiya, N. (2018). Data Mining and its Various Concepts. Kalpa Publications in Engineering, 2, 95-102.
- [63]. Sameer Nagpal, S. (2018). Analysis of LrMu Power Algorithm in the Cloud Computing Environment

using CloudSim Toolkit. International Journal of Research in Electronics and Computer Engineering (IJRECE), 6(3), 1175-1177.

- [64]. Nagpal, S., Dahiya, N., & Dalal, S. (2018). Comparative Analysis of the Power Consumption Techniques in the Cloud Computing Environment. Journal Homepage: http://www. ijmra.us, 8(8), 1.
- [65]. Kumar, N., Dalal, S., & Dahiya, N. (2018). Approach of Lion Optimization Algorithm for Efficient Load Balancing in Cloud Computing. Journal Homepage: http://www.ijmra.us, 8(8), 1.
- [66]. Sameer Nagpal, S. (2018). Comparison of Task Scheduling in Cloud Computing Using various Optimization Algorithms. Journal of Computational Information Systems, 14(4), 43-57.
- [67]. Arora, S., & Dalal, S. (2018). Hybrid algorithm designed for handling remote integrity check mechanism over dynamic cloud environment. International Journal of Engineering & Technology, 7(2.4), 161-164.
- [68]. Kukreja, S., & Dalal, S. (2018). Modified drosophila optimization algorithm for managing re-sources in cloud environment. International Journal of Engineering & Technology, 7(2.4), 165-169.
- [69]. Jindal, U., Dalal, S., & Dahiya, N. (2018). A combine approach of preprocessing in integrated signature verification (ISV). International Journal of Engineering & Technology, 7(1.2), 155-159.
- [70]. Nagpal, S., Dahiya, N., & Dalal, S. (2018). Comparison of Task Scheduling in Cloud Computing Using various Optimization Algorithms. Journal of Computational Information Systems ISSN, 1553-9105.
- [71]. Jindal, U., Dalal, S., & Dahiya, N. (2018). A combine approach of preprocessing in integrated signature verification (ISV). International Journal of Engineering & Technology, 7(1.2), 155-159
- [72]. Shakti Arora, S. (2018). Resolving problem of Trust context in Cloud Computing. International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), 5(1), 138-142.
- [73]. Dalal, S., Dahiya, N., & Jaglan, V. (2018). Efficient tuning of COCOMO model cost drivers through generalized reduced gradient (GRG) nonlinear optimization with best-fit analysis. In Progress in Advanced Computing and Intelligent Engineering (pp. 347-354). Springer, Singapore
- [74]. Seth, B., & Dalal, S. (2018). Analytical assessment of security mechanisms of cloud environment. In Progress in Advanced Computing and Intelligent Engineering (pp. 211-220). Springer, Singapore.
- [75]. Kukreja, S., & Dalal, S. (2018). Performance analysis of cloud resource provisioning algorithms. In Progress in Advanced Computing and Intelligent Engineering (pp. 593-602). Springer, Singapore.
- [76]. Rani, U., Dalal, S., & Kumar, J. (2018). Optimizing performance of fuzzy decision support system with multiple parameter dependency for cloud provider evaluation. Int. J. Eng. Technol, 7(1.2), 61-65.

- [77]. Dahiya, N., Dalal, S., & Khatri, S. (2017). An Enhanced Bat Algorithm for Data Clustering Problems. International Journal of Advanced Research in Computer Science, 8(3).
- [78]. Dahiya, N., Dalal, S., & Khatri, S. (2017). Data clustering and its Application to numerical function optimization algorithm. International Journal of Advanced Research in Computer Science, 8(1).
- [79]. Arora, S., & Dalal, S. (2017). Adaptive Model For Integrity Verification In Cloud Computing System. International Journal of Advanced Research in Computer Science, 8(1), 233-236.
- [80]. Neeraj Dahiya, S. (2017). Numerical Function Optimization: Model, Procedure And Uses. International Journal of Engineering Science and Technology (IJEST), 9(4), 266-270.
- [81]. Dahiya, N., Dalal, S., & Khatri, S. (2016). Refinement with Image clustering using Self-Organizing Map and Numerical Function Optimization. International Journal of Computer Science and Information Security, 14(11), 909.
- [82]. Neeraj Dahiya, S. (2016). A Review on Numerical function optimization Algorithm and its Applications to Data Clustering & Classification. International Journal of Recent Research Aspects, 3(3), 115-121.
- [83]. Arora, S., & Dalal, S. (2016). Novel Approach of Integrity Verification in Dynamic Cloud Environment. International Journal of Computer Science and Information Security, 14(8), 207.
- [84]. Dalal, S., & Kukreja, S. (2016). Genetic Algorithm based Novel approach for Load Balancing problem in Cloud environment. International Journal of computer science and information security, 14(7), 88.
- [85]. Arora, S., & Dalal, S. (2016). Study of Integrity Based Algorithm in Decentralized Cloud Computing Environment. International Journal of Institutional & Industrial Research, 1(1), 15-17.
- [86]. Vishakha, S. D. (2016). Performance Analysis of Cloud Load Balancing Algorithms. International Journal of Institutional and Industrial Research, 1(01), 1-5.
- [87]. Dalal, S., & Jindal, U. (2016, March). Performance of integrated signature verification approach. In 2016 3rd International Conference on Computing for Sustainable Global Development (INDIACom) (pp. 3369-3373). IEEE.
- [88]. Dahiya, N., Dalal, S., & Tanwar, G. (2016, March). Refining of image using self-organizing map with clustering. In AIP Conference Proceedings (Vol. 1715, No. 1, p. 020064). AIP Publishing LLC.
- [89]. Dahiya, N., Dalal, S., & Khatri, S. (2016). A Review on Numerical function optimization Algorithm and its Applications to Data Clustering & Classification. International Journal of Recent Research Aspects, 3(3), 111-115.
- [90]. Arora, S., & Dalal, S. (2016). Enhanced Privacy Preserving Access Control in the Cloud.

International Journal of Recent Research Aspects, 3(4), 66-70.

- [91]. Dahiya, N., Dalal, S., Khatri, S., & Kumar, Y. (2016). Cat Swarm Optimization: Applications And Experimental Illustrations To Data Clustering. International Journal of Control Theory and Applications, 9(41), 759-765.
- [92]. Rani, U., & Dalal, S. (2016). Neural Network Applications in Design Process of Decision Support System. International Journal of Recent Research Aspects, 4(2), 40-44.
- [93]. Seth, B., & Dalal, S. (2016). Designing Hybrid Security Architecture in Multi Cloud System. International Journal of Control Theory and Applications, 9(41), 767-776.
- [94]. Seth, B., & Dalal, S. (2016). Analysis of cryptographic approaches. International Journal of Recent Research Aspect, 3(1), 21-24.
- [95]. Jindal, U., & Dalal, S. (2016). Survey on Signature verification and recognition using SIFT and its variant. International Journal of Recent Research Aspects, 3(3), 26-29.
- [96]. Sharma, P., & Dalal, S. (2014). Reviewing MANET Network Security Threats. identity, 25-30.
- [97]. Sharma, D., Dalal, S., & Sharma, K. K. (2014). Evaluating Heuristic based Load Balancing Algorithm through Ant Colony Optimization. environment, 5-9.
- [98]. Sharma, D., Sharma, K., & Dalal, S. (2014). Optimized load balancing in grid computing using tentative ant colony algorithm. International Journal of Recent Research Aspects, 1(1), 35-39.
- [99]. Jindal, K., Dalal, S., & Sharma, K. K. (2014, February). Analyzing spoofing attacks in wireless networks. In 2014 Fourth International Conference on Advanced Computing & Communication Technologies (pp. 398-402). IEEE.
- [100]. Dalal, Surjeet & Srinivasan, S, Approach of multi agent system in controlling bullwhip effect of supply chain management system using case based reasoning, Department of Computer Science, Suresh Gyan Vihar University, 20/01/2014, http://hdl.handle.net/10603/36464
- [101]. Sharma, S., & Dalal, S. (2014). Recognition and identification schemes for the development of Eigen feature extraction based iris recognition system. International Journal of Recent Research Aspects ISSN, 2349-7688.
- [102]. Sharma, P., Sharma, K., & Dalal, S. (2014). Preventing Sybil Attack in MANET using Super nodes approach. International Journal of Recent Research Aspects, 1(1), 30-34.
- [103]. Simi Gupta, D., & Dalal, S. (2014). Efficient broker scheduling in Cloud Computing. International Journal of Recent Research Aspects, 1(2), 74-77.
- [104]. Sharma, S., & Dalal, S. (2014). Feature Recognition from Histogram and Eigen Algorithm in Digital Image Processing.

- [105]. Gupta, S., Sharma, K. K., & Dalal, S. (2014). Multi objective parameters for real time scheduling in cloud computing.
- [106]. Mittal, A., & Dalal, S. (2014). Implying p-Cure algorithm in case retrieval stage of the case-based reasoning. International Journal of Recent Research Aspects, 3(3), 91-98.
- [107]. Mittal, A., Sharma, K. K., & Dalal, S. (2014). Approach of BPEL in supply chain activities for managing bullwhip effect of SCM system. Int. J. Res. Asp. Eng. Manag, 1(2), 26-30.
- [108]. Sharma, P., & Dalal, S. (2014). Shortest Path Algorithms Technique for Nearly Acyclic Graphs. International Journal of Recent Research Aspects, 3(3), 36-39.
- [109]. Dalal, S., Jaglan, V., & Sharma, K. K. (2014). Designing architecture of demand forecasting tool using multi-agent system. International Journal of Advanced Research in Engineering and Applied Sciences, 3(1), 11-20.
- [110]. Sheikh, M., Sharma, K., & Dalal, S. (2014). Efficient method for WiMAX soft handover in VOIP and IPTV. International Journal of Research Aspects of Engineering & Management, 1(2), 5-48.
- [111]. Kumar, S., & Dalal, S. (2014). Optimizing Intrusion Detection System using Genetic Algorithm. International Journal of Research Aspects of Engineering and Management ISSN, 2348-6627.
- [112]. Mittal, A., Sharma, K. K., & Dalal, S. (2014). Applying clustering algorithm in case retrieval phase of the case-based reasoning. International Journal of Research Aspects of Engineering and Management, 1(2), 14-16.
- [113]. Dalal, S., Jaglan, V., & Sharma, K. K. (2014). Integrating Multi-case-base-reasoning with Distributed case-based reasoning. International Journal of Advanced Research in IT and Engineering ISSN, 2278-6244.
- [114]. Saini, A., Sharma, K. K., & Dalal, S. (2014). A survey on outlier detection in WSN. International Journal of Research Aspects of Engineering and Management ISSN, 2348-6627.
- [115]. Sharma, P., Sharma, D. K., & Dalal, S. (2014). Preventing Sybil Attack In MANET Using Super Node Using Approach. International Journal of Recent Research Aspects, ISSN, 2349-7688.
- [116]. Chahar, P., & Dalal, S. (2013). Deadlock resolution techniques: an overview. International Journal of Scientific and Research Publications, 3(7), 1-5.
- [117]. Dalal, Surjeet, Keshav Jindal, and Monika Nirwal. "Developing Flexible Decision Support Systems Using Case-Base Reasoning System." International Journal of Engineering and Management Research (IJEMR) 3.4 (2013): 13-17.
- [118]. Dalal, S., & Sharma, K. K. (2013). Simulating supply chain activities in multi-agent based supply chain management system with plasma simulator. International journal of Computer Science & Communication, 4(1), 80-85.

- [119]. Dalal, S., Tanwar, G., & Alhawat, N. (2013). Designing CBRBDI agent for implementing supply chain system. system, 3(1), 1288-1292.
- [120]. Dalal, S., & Athavale, V. (2012). Challenging Bullwhip Effect of Supply Chain Through Case Based Multi Agent System: A Review. International Journal of Advanced Research in Computer Science and Software Engineering, 2(12), 267-272.
- [121]. Dalal, S., Tanwar, G., & Jindal, K. (2012). Agent Oriented Programming In Trading System Automation. International Journal of Research in IT, Management and Engineering, 2(8), 51-59.
- [122]. Dalal, Surjeet, and Vijay Athavale. "Analysing Supply Chain Strategy Using Case-Based Reasoning." Journal of Supply Chain Management Systems 1.3 (2012).
- [123]. Jindal, K., Dalal, S., & Jaglan, V. (2012). Comparative Study On IEEE 802.11 Wireless Local Area Network Securities. International Journal of Advanced Research in Computer Science, 3(1).
- [124]. Jindal, K., Dalal, S., & Tanwar, G. (2012). Congestion Control Framework in Ad-Hoc Wireless using Neural Networks in QoS. International Journal of Research in Computer Engineering and Electronics, ISSN, 15-18.
- [125]. Dalal, S., Athavale, V., & Jindal, K. (2012). Designing Case-based reasoning applications with Colibri Studio. International Journal of Research in Computer Engineering and Electronics, 1(1), 15-18.

- [126]. Jaglan, V., Dalal, S., & Srinivasan, S. (2011). Improving performance of business intelligence through case based reasoning. International Journal of Engineering Science and Technology, 3(4), 2880-2886.
- [127]. Jaglan, V., Dalai, S., & Srinivasan, S. (2011). Enhancing security of agent-oriented techniques programs code using jar files. International Journal on Computer Science and Engineering, 3(4), 1627-1632.
- [128]. Dalal, S., Athavale, V., & Jindal, K. (2011). Case retrieval optimization of Case-based reasoning through Knowledge-intensive Similarity measures. Int. J. Comput. Appl, 34(3), 12-18.
- [129]. Surjeet Dalal, V., & Kumar, S. (2010). Designing of business tool using intelligent agent. In National Conference Advanced Computing & Communication tech ACCT (pp. 751-754).
- [130]. http://www.cps.gov.uk/publications/code\_for\_crow n\_prosecutors/guiltypleas.html
- [131]. Attorney general's guidelines on plea discussions in cases of serious or complex fraud
- [132]. Criminal Justice By Andrew Sanders, Richard Young, Mandy Burton
- [133]. Case : Brady v. United States 297 US 742-25 L.Ed. 2d 747
- [134]. Case: Santobello v. New York 404 US 257 (1971).