REVIEW OF LITERATURES

Siti Nasyrah Ibrahim, Siti Nurani Hasan, Syed Abdul Hamid bin Sayed Hassan, Mohammad Noorizudin Nooh, Norsyahidah Mohammad Yusof – ISSN No. : 2348-697X (Vol. 3 No. 1 January 2015) – The result of data analysis and control measures as mentioned with will strengthen the OSH practice and BBS implementation at construction Site. Inspite of training to workers still they are lack of BBS practice. So proper renforcement technique by the management is required.

Ahmad Nurulzam Md Zain, Siti Rohaida Mohamed Zainal, - ISSN No. 1913-9020 (Vol-5, Issue-2I, April 2012) – highlighted that BBS is essential for young engineers in laboratory Safety. The critical condition emerges among researchers to find a way to reduce accidents among young workers. The planned behavior verses actual behavior for young workers has been studied.

N. Murali, M. Prabhu, R. Srinivasan, S. Magibalan - ISSN No. 2321-5747 (Vol. 3, No. 2; 2015) – mentioned that there was a significant improvement of safety culture among workers in cement industry by implementing BBS experiment and analyzing the same. A good relationship was created between them. Significant improvement in controlling accidents due to controlling unsafe acts and unsafe conditions. By implementing safe behavioural activities industry can achieve a healthy accident free environment.

Suresh Kumar Singh - ISSN No. 2277-727X (Volume 2, Issue 3, July-Sept-2013) – highlighted that a comprehensive outcome on the behavioral study on Oil and gas installations shows that quality of observation and seriousness in observing behavior is also a key factor. Some installations shows improvement in safe behavior but not consistent due to quality of input and observation. Human relation is a important factor for quality observations. Bonding between different layers of people working will show improvement in Safe behavior. There ia non cooperation among contract workers due to huge wage difference between company employees and contract workers.

A. Hemamalinie, A. J. Jeyaarthi, Dr L. Ramajeyam - ISSN No. 2250-2459 (Volume 4, Special Issue 4, June 2014) – mentioned that safety plays a vital role in the construction sector. Safety Culture is the enduring value and priority placed on workers and public safety by everyone in every group at every level of an organization. The case
study of fatal and non-fatal accidents to examine the current culture in the workplace regards to the management of safety and health and create a safe working environment for the construction company is to be reviewed necessarily.

**Hanna B. Rasmussen, Linda Drupsteen, Johnny Dyreborg – ISSN No. 14438844 (Volume: 17, Issue: 02, 2012)** – highlighted that how reported near misses are useful for learning. There is a daily barrier in reporting near misses because near misses are not reported regularly. All out efforts by the management must be there for striving efforts to increase near miss reporting culture. Because of fear of blame less near misses are reported inspite of large number of incidents actually happening. Important learnings are missed out due to near misses are not thoroughly analysed.

**Emmanuel I Akpan – ISSN No.1833-3850 (Vol-6. No-3, March. 2011)** – mentioned that most organisations are upholding the performance goal. Management feels that this is the sole responsibility of the workers. Management is mainly concerned about resource utilization like maintenance of machine, getting material, equipment etc. but not managing human resources properly. There is no monitoring agency to which workplace safety is deteriated.

**Ganapathi Bhat, YS Sidde Gowda. - ISSN No. 2249-8958 (Issue 6, Aug, 2013, , Vol. 2)** – mentioned that the key drivers to get success in safety system in Emirats is as per six prominent categories such as organization, financial, procedural, and external. A successful safety management system in Emirats outline leadership and responsibility of the management for implementing Emirats Safety Policy. The key focus area is economic condition of workers coming from low income countries.

**Rosliza Osman, Noorhasasimah Awang, Syed Abdul Hamid Syed Hassan, Norsyahidah Mohmmad Yusof: – ISSN No. 2201-6333 Vol-3, No-1, January-2015** – mentioned that the key features of Behavioural Based Safety is purpose, commitment, focus, execution. It is important to increase knowledge level of workers to understand unsafe condition and unsafe activity to reduce accidents and workplace injury. By practice accident can be reduced. Changing human behavior
safety culture can be achieved. By conducting training, workers can know the hazards they are exposed. This study can be further referred for research work in subsequent years in the related field. BBS here covers human behavior and environment factors.

Brad Gilbreath, Leila Karimi — ISSN No. 1554-3145(Vol-7, Issue-2, 2012) — highlighted that supervisors can have a significant effect in influencing employees' morale and their behavior relating workplace. Bad bosses affect employee well-being; that means managers making workers sick. Organisations need to track to find how work environment is affecting their workers or employees. Review on job stress, workers’ welfare review, deployment pattern will definitely improve safe behavior of workers. Quality of workers’ life needs to be improved to enhance employees’ positive psychology.

Michael E. Hall, Earl H. Blair, Susan M. Smith and June D. Gorski (ISSN 2168-1368, Vol-S, Issue-1, 2013) — explained that different safety climate can exist among different groups of workers. Identifies three factors like, there is a need to strengthen employee positive attitude involving higher management directly addressing them. Workers having previous work-related injuries to share their experience among workers reading poor work environment e Risk taking behavior, Manager/Supervisor Support, Safety System Program. This research provides a foundation for development and application of safety climates instruments based on the theory of planned behavior to specific high hazard industries other than the steel mini-mill industry.

Christian Van Stolk, Laura Staesky, Emmanuel Hassan, Chong Woo Kim (ISSN 1831-9343, 2012) — highlighted that traditional OSH policy has been replaced by new policy towards promotion of Occupational Safety Health Management which guides about workplace hazards and how it tackles from managerial point of view. More over relevance of this study will vary from size of the organisation. This study also insights how effective safety management can be. A conceptual framework of occupational safety and health management includes policy, organisational, planning & implementing, performance measuring, performance review and audit.
Samuel Oladipo Olutuassa ISSN:2319-7668,Vol-16,Issue-3 2014) — explained that think, act, be philosophy for risk management should be carried out at planning stage. Designating a trained safety personnel will improve workers confidence level that a qualified person is taking care of safety. Functioning of safety and fire fighting equipment and its maintenance will further improve confidence and safe behavior of worker will be enhanced with positive attitude. Further safety practice in line with global practice will improve workers confidence. It explains Integrated ,Proactive , control & reactive model

Elizabeth Fitzgerald, Desmond Cawley, Neil J. Rowan( ISSN 2141-2499, Vol-3, 2011): — explained that identifying clinical incidents and reporting favourably will improve patient safety .This study identify lack of feedback as an issue so far as incident reporting is concerned. This study finds current trend of incident reporting and lack of feed back. Proper feed back will make staff alter their work practices to reduce incident and increasing patient safety. Management should impart adequate training to increase awareness. Amending organizational policy on safety will improve patient safety and clinical practice.

Chika Yinka-Banjo, Antoine Bagula, Isaac 0. Osunmakinde: (ISSN 1992-8424, Vol-7, No-5 ,1992) mentioned that in iiazardoJs atmosphere robots can be used for safety inspection avoiding human life in danger. Compares different behavioural models with proposed robot aid model The paper reviews different causes of underground mining disasters proposed br-haiourai approach . The behavioural layer shows how two robots cooperates while taking action and this concept is achieved with ML algorithms and Si tPchnique.The implementation with some open source robots is suitable in the application ayer

Mohmd. Acileem Mir, Bibha Mahto - ISSN No. 2395-0072 (Vol. 2, Issue 2, May. 2015) - mentioned that the Safety Managers have opportunity for influencing and enhancing the sense of safety and qualiy of work environment or measuring effectiveness of safety improvement for projects safety climate can be used. Work
pressure has no significant direct relationship with the safety climate. For positive safety climate the role of management commitment, communication, workers involvement, attitudes competence as well as supportive and supervising environment is required.

Ms Gayathiri, Mr. Ganesh Terumol D. — ISSN No. 2347-6710 (Vol. 3(Issue-1) Feb, 2014) - mentioned that the steering control is composed of behavior such as left-turn, right turn, lane changing, obstacle avoidance etc. These behaviors are dependent on the lane conditions and path. The layered architecture for implementing hybride controller for vehicle is presented. Higher level control hybride control and lower level control are three layers in this architecture.

Abhaynath Kumar, NK Jain, Praveen Patel - ISSN No. 2250-2459, Vol. 5, Issue-1, January, 2015) — highlighted that the study defines the purpose of motivation to improve the work performance of individual. Therefore; performance+ ability Motivation. Motivation is needed to improve the work performance. Motivation required to minimize human error, unsafe act and unsafe condition. There are 3 steps for motivation i.e. drive force some behavior, by maintaining and sustaining behavior once it occurred, by use of this function we can guide the behavior of a particular person In the desired direction.

Jayapriya P, Prof. Prabhakaran S, Ashok T - ISSN No. 2321-9939 (Vol. 2,Issue-1, 2014) — mentioned in this study that the Board module consists of GPS receiver, a GSM modem. Various types of sensors in this system recommended as alcohol sensor, eye blink sensor, lane detection sensor, heart beat sensor, accident sensor, RFID reader, finger print, sensors etc.

Ashok Garlapati, Dr. Nihal Siddique, Dr. Fatima Al-Shati - ISSN No. 2278-7763, Vol-2,Issue-5, May-2013— mentioned that safety at workplace is influenced by number of factors like organizational environment, Management attitude and commitment, nature of job or task and personal attributes of individual _ Safety related
behavior at workplace can be modified by addressing these major influence on workforce in enhancing HSE performance in upstream Oil and Gas Company.

Dr. M.O. Agwu - ISSN No. 2235-767X (Volume 1, Issue-5, Aug 2012) — explained that focus should be on daily tool box talk at work site for safe work procedure. There should be continuous review of Corporate Safety policy to accommodate changes in construction environment. Training and retraining of workers will build confidence for safe behavior. Site Safety audit to be increased to find out unsafe act and unsafe conditions at construction site

Barry. J. Berghaus: - ISSN No. 1536-6669, Vol-13, No.1, 2010) - The study reveals that young workers are more prone to accident due their restless behavior. Also new workers are more prone to accidents due to lack of experience. So training and retraining required to improve safe behavior of young and New workers. Trainers to be hired for such training must have at least faculty rating. Various types of training methodology to be adopted for delivering result at the field so far as safe behavior and confidence is concerned.

Michael E. Hall, Earl H Blair, Susan M. Smith, June D. Gorski: - ISSN No. 21681368 (Vol.9, No.1, 2013) explained that in this study they have targeted high hazard Industry. Positive Safety climate is associated with improved safety practices. Need for a theory based safety climate instrument. All instruments are not suitable for safety climate of the industry. Design factor contributes to safety but it is not considered as instrument for safety.

Quasim Saleem, Mehwish, Sahid Akram Nassem: - ISSN No. 2229-6166, Vol-2, Issue-3, Sept-2011) - mentioned that training and development plays an important role for growth of employees in organisation. Either hiring trained employee or imparting them training is goal of management to improve/influence behavior of workers. Organisation spending money for employee not for betterment of employee but for growth of organisation.

Aref Charehzehi, Aireza Ahankoob - ISSN No. 2231-1963 (Vol. 5, Issue -1 Nov-2012) - highlighted that unsafe act and unsafe condition contributes 99 percent of accident in construction site. Cause of accident is revealed to be human factor-
personal factor. Wrong doing of other person is also physical factor. Work place hazard should be identified For identification of work place hazard job safety analysis must be carried out. Tool box talk and supervision is another strong key criteria to avoid accidents. Near miss incidents are not also reported due to blame game and fear. Management commitment to improve safe behavior by training is essential.

Teoh BC, Airasheedy AA, Hassali MA, Tew MM, Samsudin Mk- ISSN No. 2167-1052, Vol-4, Issue-5, 2015) — explained that work load is not a barrier for medication error reporting. Fear of blame in reporting medication error by Doctors and pharmacists prevents error reporting. Still reporting of medication error is high priority for doctors and pharmacists. Other wise this may lead to risk to life of a patient. Quality control and record keeping is must for pharmacist Doctor also sometimes believes pharmacist for reporting.

Michalis Christou, Mytto Konstantinidou. -ISSN No. 18331-9424 (2012) explained that there is a failure to properly identifying risks and addressing them in risk assessment. There is a failure of cementing job in well Failure in blow out preventer. Failure to recognize and react to early warning signals of hydrocarbons entering the well. Failure to adequately use the diver-ter. There was too much reliance on human factor. Investigation investigation reveals above series of failures which could have been avoided by proper safety Audit and review by Management.

Pemjan Ghasemi Poor Sabet, Hamid adal, Mir Hadi Moazen Jamshidi, Kiyanoosh Golchin Rad — ISSN No. 2320-334X (Vol. 6, Issue 2, Apr-2013) This study mentioned that revised domino model is applicable for identification of risk and its control measure. Revised Domino model consists of physical and mental condition of employees contributes to accident. Unsafe act/ unsafe condition and immediate causes of accident. Management if ignores rise in unsafe act/unsafe condition.

Noorul Huda Zaaria, Naruldin Mansor, Zalinawati Abdullah:— ISSN No. 2047-0398, Vol-2, July-2012) — The study revealed here that five elements like stress/ fatigue, unsafe act, machine or tools, workplace design, training procedure contributes to the work place accident. Responsibility of employees and employer to prevent work
place accident. The statutory obligation compliance is not implemented in right spirit. Monitoring by statutory authority is also not conveniently implemented. Management takes many changes granted without improving safety facility system.

Mr. Gopinath S. Mohite, Prof. Ashish P. Waghmare: - ISSN No. 2248-9622, Vol-4, Issue-11, Nov-2014 ) - mentioned that Dos / Don'ts of construction safety to be emphasized. Safety Training of high level is important for infrastructure Safety. Proper communication plays important role to avoid work place accident and improve safe behavior. Improved work site condition facilitates safety atmosphere. Avoid out dated equipments for use during construction safety

Pedro k Baziuk, Solve S. Rivera, Jorge Nunez Mc Leod: - ISSN No. 2078- 0958, VolA2 (July 21414) - explained that different taxonomy provides different information. Two desirable features sought in newest taxonomies i.e. inter-rater reliability and generality The study requires more specific analysis and further study.

Ewas Douglas, Samuel Cromie, M. Chiara Leva, Nora Balfe: ISSN No.. 2283-9216 (2014) — explained the motivation for employees to report incident.Lessons learning from nearmiss incident reporting is not for fault finding.Flexible culture in safety related changes•Learning culture to he improved. Management of Change approval with mitigation measures for immediate safety.

Michael P.Wilson, Heather N.Madison, Stephen B. Healy— ISSN No. 15459624, 2012) — mentioned that Rescuers are also facing fatal injury during emergency handling. Sizeable portion of employer are dependent on public fire department for confined space entry rescue operation. Due to late arrival of specialized rescue team fatality rate increases. Specialised rescue equipments required at emergency spot is not available for doing immediate confined space emergency handling. Training for use of rescue items and Personal protective equipments for confined space rescue work will improve response time also.

Javier Irizarry, Masoud Gheisari, Bruce N. Walker- ISSN No. 1874-4753 (2012) — explained the drone concept for safety monitoring at job site from remote. Drone provides information about job site safety to HSE Manager. Interaction between HSE
Manager and workers through remote system. HSE manager without physically present at work site able to monitor the communication at work site. Disadvantages are sometimes communication may fail during critical conditions also. Battery life of drone is short. While drone flying over work site may obstruct work.

Ong Choon Hee: ISSN No. 2222-6990, Vol-4, Issue-4, April-2014) highlighted that for better quality and productivity, Safety culture should be also given priority. Management commitment towards improving safety culture is also equally important. If profit/loss is important for a manufacturing company safety to be treated as crucial. Management should not be confined to safety review but transformation of safety value into safety belief.