CHAPTER – 1
INTRODUCTION

1.1 EVOLUTION & DEVELOPMENT OF HRM

The origin of the Human Resource Management (HRM) is as old as the advent of human race. The rapid development in technology and its proliferation in all walks of life has become a major driver in changing the life style of the people. Numerous facilities, which just a few years back were considered as luxury, have now become a requirement of daily need. Case in point is of the cellular phones and television to name a few. The manifold increase in the aspirations of the individuals has resulted into steady reduction in retention of the employees and increased turnover of the manpower. Indian Army is not insulated from these developments. Hence it is of prime importance that manpower planners in the army take into consideration all factors which include the present and crystal gaze into the future. Thus it is essential that a pragmatic approach is taken for the human resource management (HRM) in the Corps of EME. The work done in this research has been directed to have a holistic view of manpower issues in the Corps. The research work done in this regards is mainly oriented towards the Army but comparisons have been drawn between the industry and other government organisations.

Management of human resources, as a subject of study even though of relatively recent origin, the concept upon which the theory is based, dates back to 400 B.C. Minimum wage and incentive wage plans were in Babylonian codes around 1800 BC. The Chinese, as early as 1650 BC had originated the ‘Principle of Division of Labour’ (specialisation). The span of management and the related concepts of organisation were well understood by Moses around 1200 BC. In India, Kautilya (350-283 BC) observed, a sound base for systematic management of human resource, as early as 4th century BC.

Prior to Industrial revolution, the status of labour was extremely low and the human relationship between the employers and the employees were characterised by slavery, serfdom and the guild system. Slavery was based on negative
incentive system and serfdom was based on positive incentive system. However, both these systems were replaced with the growth of manufacturing and commercial enterprises by the guild system involving master craftsman (the owner), the journeyman (the traveling worker) and the apprentice.

Guild system marked the beginning of Human resource development for selection, training and development of workers and emergence of collective bargaining for wages and working condition. The Industrial revolution followed the new economic doctrine of 'laissez-faire'. New industrial organizations were characterized by the factory system, a change from cottage system. A factory production system deteriorated the employer – employee relationship due to the unhealthy work environment, long working hours, fatigue, strain, increased likelihood of accidents etc. Reviewing the history, it is observed that great thrust had been given to personnel management functions by business expansion, labour strategies and higher wage rates during World War - I (1917). Many of these activities had been initiated for welfare. By 1923, the profession had reached the stage of maturity, as organisations started giving importance to it and other aspects viz. production and marketing. Initially Personnel Department functions centered on introduction of welfare and charitable activity. It was then perceived as a moral duty and later considered as the pre-condition for industrial democracy. The second development sprung from the employers endeavours to cope with the challenges of trade unionism. The third phase could be attributed to the development of the concept of humanisation of work.

Factors which have been responsible for this development are:-

(a) Rapid technological development.
(b) Rising competition in domestic and international market.
(c) Due to rise in consumerism and lifting of strict government control from various sectors, international competition has increased many folds. This has led to the need to maintain quality, price and delivery time, which has completely challenged the existence of traditional production methods.
(d) Social changes at all levels.
(e) Political development has resulted in restructuring of trade unions.
1.2 **Role and Objectives of Human Resource Management**

**Human Resources Management** (HRM) is a function in organizations designed to maximize employee performance in service of their employer’s strategic objectives. It is the process of hiring and developing employees so that they become more valuable and attached to the organization. Human Resource Management includes conducting job analyses, HR planning, recruiting, training, wages administration, providing benefits/incentives, performance appraisal, resolving disputes, and communicating with all employees at all levels. HRM is primarily concerned with how people are managed within organizations, focusing on various policies and systems. The objective of Human Resources is to maximise the returns on investment from the organisation's human capital. This meaning is also applicable to the soldiers of the Indian Army who are involved in technical and repair activities.

Human resource management aims to improve the productive contribution of individuals while simultaneously attempting to attain other societal and individual employee objectives. HRM is therefore viewed as a vehicle for nurturing a culture of higher productivity and organisational growth. Unlike the traditional personnel management (TPM), HRM proactively invests in people and in building their competence. Increasingly, planned HR interventions are being used in the process of people management. During the last quarter of century, management scientists have expended considerable efforts in developing, testing and implementing a variety of quantitative techniques for better manpower management with special emphasis on human resource management. While TPM supports pluralistic labour management relations, HRM promotes a more focused, unitary managerial perspective which is more holistic, business oriented and strategically driven. The most significant contribution of HRM is the creation of an organisational culture which can pursue policies of individualism as well as teamwork at the same time. This changed organisational environment has generated competition, which has helped in cutting costs, promote flexibility and improve quality besides quickly adapting and responding to ground realities.

The Vision Statement of the Corps of EME in consonance with that of the Indian Army is as follows :-
“To enhance the Army’s combat potential by exploiting the power of technology and innovation”

In accordance with the vision, Role of Corps of EME has been defined as:-

“To achieve and maintain the operational fitness of all the electrical, mechanical, aeronautical, electronics, medical and optical equipment of the Army”

Accordingly the major functions of the Corps of EME are as under:-

(a) **Repairs.** Repair/maintenance of all the equipment of Army through its three echelons of repairs - light repairs, field repairs and base repairs.

(b) **Manufacture & Indigenisation.** Manufacture of all spares and indigenisation may involve indigenous manufacture of spares, mock ups, simulators, containers etc. Recently the responsibility of indigenisation of spares has been transferred from Directorate General of Quality Assurance (DGQA) to EME for those weapon systems for which no transfer of technology (ToT) has been done.

(c) **Inspection.** Inspection of all equipments, including those held in depots, the repair of which is the responsibility of EME.

(d) **Recovery.** Recovery beyond unit capabilities of all vehicles/equipments for whose repairs EME is responsible.

(e) **Technical Advice.** Providing technical advice on equipments’ selection, induction, development, maintenance, handling and discard.

### 1.3 Organisational Design & HRM

The Human Resource Management objective is to have an organisation which takes care of the recruitment, staffing, training and development of all the employees in accordance with the set objectives of the organisation. The objective of structuring and restructuring the organisational design of the HRM is not only to make the best use of technology, finances or systems only but also of the people. Presently organisations across the globe primarily concentrate on the customers by dismantling vertically functional departments and replacing them with horizontal cross-functional and process-centric teams duly empowered. The general
**functional areas** of personnel vis-à-vis HRD professionals can be grouped under five major heads as below:-

(a) Determining and staffing for employment needs.
(b) Measuring performance and developing employer potential.
(c) Preserving effective employee – management relationships.
(d) Identifying and resolving employee problems.
(e) Anticipating and coping with changes of organisational development.

The main **objectives** of Human Resource Development are:-

(a) To develop capabilities of all individuals for the present role.
(b) To develop capabilities of all individuals for their envisaged role.
(c) To develop better interpersonal & employer employee relationships.
(d) To develop team spirit.
(e) To develop a better organisational climate.
(f) To develop coordination among different units of an organisation.

The **Organisational Tree** of the Indian Army, which comprises of the various arms and services, is depicted below at **Figure -1.1**.

![Organisation Tree of the Indian Army](image)

**Figure - 1.1 : Organisation Tree of the Indian Army**
The organisation of the Directorate General of EME is given at Fig. -1.2

![Diagram showing the organisation of the Directorate General of EME](image)

**Figure – 1.2 : Organisation of the Corps of EME**

The Directorate General of EME, with its headquarters (HQ) located at New Delhi, is headed by a Director General (DGEME) of the rank of Lieutenant General. It is spanned over seven commands, each headed by a Major General (MGEME) except Army Training Command (ARTRAC). Under each MGEME, there are Brigadiers (Brigs) EME who command EME resources in a Corps. Again, under each Corps, there are EME battalions and each battalion has got five Field Workshops. Each Field Workshop is responsible for providing intimate repair support to the units’ equipment on its repair load. In order to train the officers and Junior Commissioned Officers (JCOs) / Other Ranks (OR) on various equipment for various skills, there are following four major training establishments under the Corps of EME :-

(a) Military College of Electronics and Mechanical Engineering (MCEME), located at Secunderabad (AP).
(b) EME School, located at Vadodra.
(c) 1 EME Centre, located at Secunderabad.
(d) 3 EME Centre, located at Bhopal.

While 1 and 3 EME Centres basically look after the Basic Military Training (BMT) and trade training of Junior Commissioned Officers (JCOs) and Other Ranks
(OR), MCEME and EME School look after the officers’ courses and upgradation courses of the JCOs/OR. In addition to the above, there are two more major establishments. One is Headquarters Technical Group EME located at Delhi Cantt. With the help of 23 Maintainability Advisory Groups (MAGs), it exercises technical control on all technical activities and helps in procurement planning, preparing the scaling documents and engineering support package (ESP). Another is HQ Base Workshop Group located at Meerut Cantt. It is responsible for planning, loading, coordinating and controlling of all overhaul/resetting commitments in its eight Army Base Workshops. In addition to eight Army Base Workshops, there are two Advance Base Workshops. These Advance Base Workshops are exclusively dedicated to a particular command and have only combatant workforce, contrary to Army Base Workshops which have mixed civilian and combatant workforce (in ratio of roughly 80:20 respectively). Because of the predominantly civilian workers, these Army Base Workshops are governed by Factories Act and other industrial labour legislations.

The Corps of EME comprises of a large workforce (both combatant and civilian), approximately one ninth of the Indian Army. Presently the approximate manpower strength held is 1,12,160 against the authorised strength of 1,20,843. The various category wise authorised versus held manpower strength of the Corps of EME is as given at Table – 1.1.

<table>
<thead>
<tr>
<th>Ser No</th>
<th>Category</th>
<th>Combatant</th>
<th>Civilian</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Authorised</td>
<td>Held</td>
<td>Authorised</td>
<td>Held</td>
</tr>
<tr>
<td>1.</td>
<td>Officers</td>
<td>4,273</td>
<td>3,055</td>
<td>209</td>
<td>86</td>
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<tr>
<td>2.</td>
<td>JCOs/HMsT/Supervisors</td>
<td>9,440</td>
<td>9,159</td>
<td>667</td>
<td>453</td>
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<tr>
<td>3.</td>
<td>Other Ranks/Tradesmen</td>
<td>8,8737</td>
<td>85,685</td>
<td>17,553</td>
<td>13,662</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,02,440</td>
<td>97,899</td>
<td>18,403</td>
<td>14,261</td>
</tr>
</tbody>
</table>

Table – 1.1 : Manpower Strength of the Corps of EME
With the massive workforce of nearly 1.12 lakhs deployed across the length and breadth of the country, the Human Resource Management (HRM) problems are very complex and challenging. Hence, there is an imminent need to go into the depth of all HRM related aspects and suggest practicable solutions to have an effective, efficient and motivated workforce who can rise to any challenge and meet any competition.

1.4 History of EME

The history of the Corps of Electrical and Mechanical Engineers (EME) dates back to 1943. Till 1939, the responsibility for repairs in the Indian Army was split between two services: the Indian Army Ordnance Corps (IAOC) who took care of the armaments while the Royal Indian Army Services Corps (RIASC) was responsible for the vehicles. This led to duplication of efforts in terms of technical personnel and valuable machinery. Delays were thus inherent to the system. Hence on 01 Apr 1939, the repair resources of the RIASC and IAOC were merged to form the Workshop Branch of the IAOC.

The history of EME is the story of the mechanisation of the armed forces in India. It is the story of constant battle against heavy odds, a battle which was and is being fought by a great team of officers and craftsmen, both combatant and civilians. Perhaps no other Corps, at its age and against such overwhelming odds, toiled so much and gave so much to an organisation. With increasing mechanisation of the Army, especially as the Second World War dragged on, it became evident that a better and more efficient system of repair was needed to cope with the increased workload. As American tanks began to arrive in India, their repair and maintenance posed major problems and a strong need for a separate independent maintenance agency was felt. As a result in 1943, a separate Corps named as Indian Electrical and Mechanical Engineers (IEME) was formed. After India become a Republic on 26 Jan 1950, the Corps dropped the prefix ‘I’ and was christened as the `Corps of Electrical and Mechanical Engineers (EME)`.

Since then, the Corps has welded itself into a fine and efficient organisation with remarkable speed. It is imbued with requisite zeal and determination to
overcome, if necessary by improvisation, all the impediments it faces in the rapidly changing technological environment. The efficacy with which an organisation performs its role is dependent to a large degree upon the sense of union developed amongst its elements – the esprit de corps. These 71 years have built up traditions and relationships of a lasting kind. These have sustained amongst its troops the concept of honour, courage, fidelity to the organisation, professional integrity and a pride in developing technical skills. The role of Corps of Electronics and Mechanical Engineers is primarily to achieve and maintain the operational fitness of electrical, mechanical, electronic and optical equipment of the Indian Army. The Corps has now three echelons of repair – Light repair, Field repair and Base repair. Forward repair teams (Light and Field repairs) are based on customized armoured vehicles and operate within a battlefield, recovering equipment casualties from their point of collapse. Base repairs (also called Factory repairs) are carried out in its eight Army Base Workshops and two Advance Base Workshops. In Base Workshops, repair of a major war like equipment is carried out by completely stripping and then rebuilding the components. The aim is to bring the equipment back to its original zero Km/zero hour status.

The Corps is providing engineering support to the army equipment during war and peace ranging from light vehicles to tanks, guns, missiles, radars, computers, helicopters, communication equipment, night vision devices, simulators and so on. Over the years there has been phenomenal rise in the sophistication, quantum and variety of military hardware. The Corps has effectively met the challenges arising from the proliferation of such multi-disciplinary high technology military hardware through continuous evolution of its engineering support system.

There are some schools of thought which perceive that war is just a fight between soldiers in combat arms. However this is not the case. It is true that an army is a fighting machine, but there are three basic needs for achieving its full potential in battle – leadership, equipment and training. Wars involve the employment of a great deal of modern and sophisticated equipment and the EME plays a vital role in assisting the Army’s posture of operational preparedness and combat effectiveness to win any war. If combat arms are the teeth of the Army then EME has a major role to keep them sharp. Through the war and the many operations that the Indian Army undertook over the past six decades, the Corps
has proven itself as a first class repair, recovery and in many cases as a design and development organisation. It is actively involved in counter-insurgency operations both in Jammu & Kashmir and in North-East.

In any sphere of human activity, there are the prima donnas, who take the bows and applause, but often forgotten is the fact that a large number of people behind the scenes toil endlessly usually unnoticed. So is the case with armed forces. While the fighting arms usually get instant recognition as they should, a lot of hard work and toil is also done by the “Services” to help former in winning the war. The Corps of EME enjoys a place of unique distinction, in peace and war. That is to keep the army’s equipment in a high state of readiness and by recovering the battlefield equipment causalities and quickly repairing them under hostile fire, besides keeping the axes of maintenance always open.

From the role of mere servicing the arms and ammunition, the Corps of Electronics and Mechanical Engineers (EME) rose to the level of managing technology for the Armed Forces. In this odyssey, the Corps crossed many hurdles and carved a niche for itself in the service of the nation. The advancements in technology in the 80s and 90s resulted in use of electronics in all types of equipment. In tune with the times, the equipment profile of the Army had predominance of electronics which necessitated the Corps to change its outlook from electrical to electronics. In January 2001, the corps was re-christened as the Corps of Electronics and Mechanical Engineers. During last six decades, the Corps proved itself with distinction in all the tasks assigned to it. Today the Corps of EME has proliferated into a massive organisation with its motto ‘Karam hi Dharam, (Work is the supreme duty) and vision “enhance army’s combat potential by exploiting technology and innovation”.

1.5 Conceptual Framework

The conceptual framework of the HRM encompasses the holistic dimensions of various HRM aspects. It includes Human Resource Management functions (viz. recruitment, training, placement, performance appraisal, motivation etc), Industrial Relation functions (viz. wage administration, collective bargaining,
conflict resolution etc) and Organisational Development functions (viz. organisational behaviour, organisational climate, team building etc). It also aims at preparing people for performing roles/ jobs/ tasks/ functions, which they may be required to perform in the future as they go up in the organisational hierarchy or as the organisation takes up new tasks through diversification, expansion, modernisation, rightsizing etc. The other objective is to identify competency gaps of the employees to perform the present roles and create conditions to help the employees bridge these gaps through continuous development.

The conceptual framework of the HRM should broadly include the following:-

(a) Establishing and maintaining a healthy, productive work culture.
(b) Improvement in organisational and technological thresholds.
(c) Effective manpower planning for ensuring optimum utilisation of human resources.
(d) Improvement in work practices and higher flexibility of work arrangement.
(e) Review of organisational structure to adapt it to changing needs.
(f) Training and development to prepare employees for the new technologies and higher levels of operation.
(g) Improving level of motivation in the organization.
(h) Attention to system rules and procedures with focus on results rather than procedures.
(j) Strengthening of participative and safety systems.
(k) Maintaining harmonious industrial relations.

The conceptual framework of the present study will be limited to the Corps of Electronics and Mechanical Engineers (EME), which ensures serviceability of all the equipment of the Indian Army, without which no war can be fought. Different aspects of HRM practices of EME such as employee recruitment, training, induction, promotion, performance, appraisal, transfer, job evaluation, wage and salary administration, motivation, morale etc will be the focus of research.