**CONCEPT NOTE  
Achieving SDG 8: Addressing Unemployment for Inclusive Growth** (SDG 8: Decent Work and Economic Growth)

**Concept of the Project**

In India, unemployment is a significant problem that undermines social cohesiveness and long-term economic growth. It causes health problems, stress, and financial instability in addition to decreasing consumer spending and stifling innovation. The COVID-19 pandemic made these issues worse. In order to analyse pre- and post-COVID effects, this study looks at state-by-state unemployment, inflation, unemployment rates, and young unemployment from 2018 to 2023. In order to achieve SDG 8 and promote equitable, sustainable economic growth in India, it is imperative to address unemployment.

The project's objective is to support Sustainable Development Goal 8 (SDG 8): Decent Work and Economic Growth by utilizing data analysis tools and processes to suggest workable solutions. In order to achieve this aim, full and productive employment for all people must be ensured, along with sustained, inclusive, and sustainable economic growth.

**Problem Statement**

In India, unemployment is still a major problem that threatens both social cohesion and sustained economic progress. At 42% among graduates under 25, youth unemployment in India is a serious obstacle to attaining SDG 8, which calls for equitable, sustained economic growth and decent work for all. In 2023, the economy expanded by 7.3%, but there was still a shortage of jobs because of structural problems, a poor response from the private sector, and dishonest tactics like phony job postings. These elements restrict sustainable development and weaken confidence in the labour market. To address this and ensure that economic growth translates into real employment possibilities, it is necessary to implement comprehensive policies, ethical recruitment procedures, and concentrate on industries that are capable of accepting young workers.

Another major issue facing the world today is inflation, which raises operating expenses and lowers consumer purchasing power, resulting in job losses. Business investments are hampered by rising interest rates and economic uncertainty, and job losses are made worse by profit margin pressures and the wage-price spiral, underscoring the necessity of targeted government measures.

This study attempts to identify critical areas of deficit across technology, gender, industry, and state, taking into account elements like education, technology, artificial intelligence, and state literacy rates. In order to support sustained, inclusive, and sustainable economic growth as well as full and productive employment for all, it will offer workable solutions in line with Sustainable Development Goal 8 (SDG 8): Decent Work and Economic Growth.

**Objective of the Project**

The primary objective of this project is to analyze unemployment data to identify the major causes and trends of joblessness, and to propose data-driven solutions that can help reduce unemployment rates. The specific objectives are:

* Examine youth unemployment, labor force participation, inflation, unemployment rates, and gender-wise, age-wise unemployment data from 2018 to 2023 to identify pre- and post-COVID trends.
* Evaluate how unemployment decreases consumer spending, stifles innovation, and contributes to financial instability, particularly during the COVID-19 pandemic.
* Conduct time series analysis to forecast unemployment trends for the upcoming years and provide actionable insights for policy interventions.
* To propose actionable policies to reduce unemployment and advance SDG 8-aligned economic growth.

**Data Sources Used (Can use any source)**The project uses Unemployment datasets from the following sources:

1. Kaggle: Various un-employment datasets are available on Kaggle, such as the "AI and un-employment" and "COVID19 & un-employment rate."
2. Government Websites: Datasets from governmental organizations like data.gov.in.
3. ILOSTAT: is the International Labour Organization’s database providing comprehensive global statistics on labor market indicators, including employment, unemployment, and labor force participation.
4. Directorate General of Employment: The Directorate General of Employment oversees employment policies, labor market analysis, and job creation initiatives to boost employment opportunities.

**Additional information and stats from sources such as:** Forbes, Mint, DW, Times of India, Businesses today, The Indian Times.

**Features**The key features of the dataset will include:

* World population: Population data for various years.
* Youth Unemployment rate: data on youth unemployment rates for the period between 2018 and 2023.
* Gender-wise Employment: Employment data from 2018 to 2023, categorized by country and gender.
* Area-wise Unemployment: Unemployment data categorized by state and areas such as Rural and Urban.
* Labor force participation rate:
* Job loss rate: Job loss data from 2018 to 2023, categorized by various countries.
* Worker population ratio and unemployment rate: Dataset from the year 2018-2023 showing worker population ratio and unemployment rate.
* Inflation rate: inflation rate data spanning from 2018 to 2023.

**Tool for Analysis (Use any tool, even excel)**

The following tools and technologies will be used for data analysis:

1. **MS Excel:** For data cleaning and consolidated various datasets into a single Excel file, integrating all parameters and year-wise data for comprehensive analysis.
2. **Python and Jupyter Notebook:** For Exploratory Data Analysis (EDA) using Numpy, Pandas, Matplotlib, Seaborn. Time series analysis using Logistic Regression & Auto ARIMA to predict unemployment scenario for upcoming year 2024 and 2025.

**Hypothesis**

Pre- and post-COVID conditions have a substantial impact on unemployment trends in India from 2018 to 2023, which in turn affects economic growth, consumer spending, and social stability. While time series research will provide insights into future patterns, which are essential for reaching SDG 8 and promoting sustainable development, effective policies and moral behaviour can lessen these consequences.

**Methodology**

The project will be conducted in the following phases:

Data Collection:

* Gather unemployment data from the aforementioned sources.
* Compile relevant data to support the analysis.

Data Cleaning and Preprocessing:

* Handle missing values, null values, and inconsistencies in the data.
* Standardize data formats and integrate datasets from different sources.

Exploratory Data Analysis (EDA), Data Visualization and Predictions:

* Identifying KPIs, trends, graphs, patterns, using different libraries and related functions.

Source Identification:

* Analyze the impact of different factors (e.g Technology, COVID19 Pandemic, Education) on unemployment rate.

Solution Development:

* **Policy Enhancement:** Develop and implement targeted policies such as **Vocational Training Programs, Reskilling and Up-skilling Programs, Support for Small and Medium Enterprises, Entrepreneurship Support for Youth** and many more to address unemployment, focusing on skill development, sector-specific job creation, and transparent recruitment practices to improve labor market outcomes and economic growth.
* **Forecasting and Planning:** Make use of time series analysis to forecast future patterns in unemployment and provide guidance for strategic planning. This will allow for the implementation of pre-emptive measures and customized interventions to deal with new issues and promote sustainable growth.
* **Regulate Ghost Jobs**: Implement strict rules to eliminate ghost jobs such as **Job Posting Audits, Job Posting Limits, Clear fake job Reporting Mechanism** which will help to ensure ensure job listings are accurate and current. This will enhance market transparency, reduce job search frustrations, and provide legitimate opportunities for job seekers.
* **Government IT Services**: Establish government-run IT services to offer cost-effective solutions and create job opportunities for unemployed graduates. This will provide affordable client services, generate employment, and enhance skills among young professionals.

Reporting and Presentation:

* Create a thorough report by compiling the results.
* Develop interactive dashboards and info-graphics that demonstrate the outcomes.
* Create policy papers and suggestions for interested parties.

**Probable Outcome**

The expected outcomes of the project are:

* Finding the Main Causes of Unemployment: Knowledge about the main causes of unemployment in various sectors.
* **Increased Job Market Transparency**

By regulating ghost jobs, the number of outdated or deceptive job advertisements will decrease, leading to more accurate job market information.

Job seekers will trust the job market more, knowing that job listings are current and genuine, which can improve overall job search moral

* **Enhanced Job Search Efficiency**

Eliminating ghost jobs will reduce the time and effort job seekers spend on futile applications, leading to a more streamlined and satisfying job search experience.

With more accurate listings, job seekers can more effectively match their skills and qualifications with available positions, increasing the chances of successful employment.

* **Job Creation**

Government IT services can provide direct jobs for unemployed graduates, addressing high youth unemployment rates and providing a pathway to stable employment.

Expanding government-run IT services can stimulate growth in the IT sector, creating additional job opportunities and supporting related industries.

* **Cost Savings**

Government-run IT services can offer more affordable solutions compared to private sector options, reducing expenses for businesses and public sector projects.

Lower costs for IT services can lead to higher overall economic efficiency, benefiting businesses and contributing to economic growth.

* **Skill Development**

Government IT centres can provide training and real-world experience, enhancing the skills of young professionals and making them more competitive in the job market.

Graduates gain practical experience and develop industry-relevant skills, improving their employability and career prospects.

To sum up, the examination of unemployment statistics can reveal significant factors and differences, resulting in focused policy suggestions and durable job-seeking tactics. The project intends to lower unemployment rates and help achieve Sustainable Development Goal 8 (SDG 8) by improving workforce skills and assisting impacted sectors.