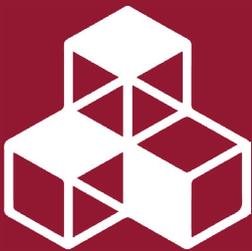


Report on

Sustainable Development

GOAL 8



DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.



The Sustainable Development Goal on Decent Work and Economic Growth has 12 targets and 16 indicators. It emphasizes achieving productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of equal value. Education Institutions are significant hubs where SDG 8 can be addressed in many ways, not only in providing decent jobs and economic growth but also in raising future workforce towards contributing to decent work and economic growth.

At Shiv Nadar, we contribute to SDG 8 through – teaching, research, university practices, and partnerships. Here is a glimpse of our work.

1 Teaching and Learning

The School of Humanities and Social Sciences has many departments which offer courses for undergraduate and graduate students, such as Economic

Growth and Environmental Quality (ECO 292), Economic Growth and Development (SWC 601), Economic Development (ECO 415), Growth and Inequality (ECO 425), Economics of Discrimination (ECO 684), Interrogating Histories and Theories of Economic Development (INT 202), Development Economics (ECO 605), Education for Sustainable Development (SWE 313). We also offer meaningful education around sustainability and related areas to all students across the University, such as Environmental Studies (CCC 704), Environmental Impact Assessment (CCC 406), Energy for Sustainable Future (CCC 614), and Green Energy Technologies (CCC613) and many more.

2 Research

Modeling and prediction of worker task performance using a knowledge-based system application

It is difficult for an assembly line manager to select an appropriate

worker from the available workers' list to assign to an assembly line workstation. Since each available worker has a unique set of skills and abilities, this research considers the worker differences in their work performance. Workers' work performance is based on their working speed or productivity. Task execution time (TET) distinguishes the worker's work performance. The application of a knowledge-based system framework makes the TET prediction. Workers' historical work-time data is used to model the knowledge objects. Workers are classified as skilled and semi-skilled, and respective methodologies are given for both. Statistical-based learning algorithms are proposed for skilled workers based on the worker's age, gender, and work skill. Similarly, worker's learning patterns are used for semi-skilled workers. The predicted TET is used in solving the assembly line worker assignment problem. The second part of this work is to prioritize the aged worker during the worker selection without increasing the worker count. The illustrative example

helps to understand the scope of the proposed methodology in an assembly line worker assignment problem. © 2022 Elsevier B.V.

Pabolu, Venkata Krishna Rao, Divya Shrivastava, and Makarand S. Kulkarni. “Modelling and predicting worker task performance using a knowledge-based system application.” *International Journal of Production Economics* 254 (2022): 108657.

A dynamic system to predict an assembly line worker's comfortable work-duration time by using the machine learning technique

Worker's work rotation between the workstations of an assembly line is a common task for an assembly line manager to manage the workload between the assembly line workers. Usually, worker work rotation makes an interruption to a continuous production system. The line manager often avoids the worker's work rotation, at least between the work breaks. This work aims to protect the manager's interest by predicting the comfortable work-duration time of an assembly line worker for a given job based on the working conditions and the worker's instantaneous physical and mental status. The comfortable work-duration time can be used during the worker's work assignment to reduce interruptions. Factors influencing the longevity of workers' comfortable work duration time are identified. IIoT-based sensors are proposed

here to monitor the relevant factors for diagnostics. Machine Learning techniques are used as a part of prognostics to predict the comfortable work-duration time of a worker based on their physical and mental status. The implementation methodology is explained along with a simulated experiment.

Pabolu, V.K.R., Shrivastava. D, Kulkarni. M.S., (2022), A Dynamic System to Predict an Assembly Line Worker's Comfortable Work-Duration Time by Using the Machine Learning Technique, *Procedia CIRP*, Vol 106, Pages 270-275.

Redesign of the traditional handloom

Dr. Prakash Kumar, Associate Professor, Department of Design, received a research grant from the Department of Scientific and Industrial Research (DSIR), Government of India, for a project to redesign [traditional handloom](#). The project aims to address occupational problems associated with conventional handlooms, which makes weaving a cumbersome and physically demanding task involving both legs and hands. Redesigning the traditional handloom would increase their efficiency, output, and hence the income for the weaver. Another important aspect is that of marginalized weaving communities who cannot buy a new system by discarding the present setup. The project is developing a set of low-cost accessories that can be fitted to existing traditional arrangements

such that at a minimal cost, weavers can increase their efficiency and income at the same time.

Influence of social structures on transnational migration duration: the case of Vietnamese contract workers returning from Taiwan

Previous studies about Vietnamese returned migrant workers reviewed that a relatively high rate of migrants returned home before their contract ended. This [paper](#) explores how the decisions to return were made through social lenses. The paper analyses data obtained through in-depth interviews of contract workers who had worked in Taiwan, focusing on Phu Tho province in Vietnam. The authors followed O'Reilly's (2012) adaption of practice theory in migration research to examine a group of Vietnamese labor emigrants returning from Taiwan. Under this theory, external and internal structures are the two divisions of the social environment. The authors identified external structures that might enable or constrain migrant's mobility. When negotiating internal structures, Vietnamese women might end their contracts early in response to family obligations. Originality/value: The findings provide insights into how women decide when to return, which may contribute to a better understanding of how to assist women engaged in transnational labor migration. © 2021, Emerald Publishing Limited.

Phuong, Nguyen Quynh, and Sundar Venkatesh. “Influence of social structures on transnational migration duration: the case of Vietnamese contract workers returning from Taiwan.” *International Journal of Sociology and Social Policy* 42, no. 11/12 (2022): 984-1000.

Religion in the labor market: evidence from India

In her research paper, Shampa Bhattacharjee, Assistant Professor, Department of Economics, analyses the education and wage gaps between Hindus and Muslims from



Redesign of the Traditional Handloom

1983 to 2011–2012 in India. Her research observes that Muslims are worse off than Hindus regarding education, and this disadvantage has increased over time. The wage gap appears more pronounced at the higher end of the wage distribution. The decomposition analysis shows that difference in education significantly contributes to the Hindu-Muslim wage gap. Again, the gaps are more pronounced in urban areas relative to rural areas. Comparing Muslims with different Hindu castes, the paper stresses that while the disadvantaged castes have improved their condition relative to Muslims over time, the state of Muslims relative to the advantaged castes has worsened. Dividing the sample into younger (aged 16–35) and older (36–65) cohorts, the Hindu-Muslim gap in education is more acute in the younger cohort, and the Hindu-Muslim wage gap is more pronounced in the older cohort. © 2022 Informa UK Limited, trading as Taylor & Francis Group.

Bhattacharjee, S. & Chaudhuri, A. R. (2022). Religion in the labor market: evidence from India. *Applied Economics*. doi: 10.1080/00036846.2022.2131717

3 University Operations

Careers at Shiv Nadar

Shiv Nadar University provides a [diverse and inclusive work environment](#) with equal professional

development opportunities and academic freedom. The university offers competitive salaries and benefits, academic leaves, and encourages work-life balance. As an employer, the University offers an incredible benefits package: comprehensive medical coverage and other programs that promote professional growth and personal well-being. Employees can take advantage of the vast array of development programs on offer. Build skills – from workshops and career programs. People from diverse backgrounds are encouraged to join the community and contribute to a discrimination and harassment-free workplace. The University hires qualified people and offers them a [stimulating workplace](#) to learn.

Disability Support Cell

Shiv Nadar Institution of Eminence has constituted a [Disability Support Cell](#) (ref. bod/2019-20/632, for compliance with the Honourable Supreme Court. Order No.292 of 2006) for the staff and students with disabilities in the University. The objectives of the cell are to make the campus friendly for all with disabilities, provide easy access to resources, address problems or special needs, and facilitate the work-life journey while maintaining the confidentiality of disability-related information. Everyone on campus can access the cell via the office and contact disability.support@snu.edu.in.

Campus jobs

The University provides students [opportunities](#) to enrich their holistic learning experience with real-life work. The work may or may not be directly related to the subjects they are studying; through these opportunities, undergraduate students gain experiential and applied learning and inculcate ethics, leadership, and service attributes.

Skill development program

At Shiv Nadar, we are committed to educational opportunities for all people regardless of gender, race, religion, or ethnicity; hence, the University has undertaken a Skill Development Pilot Program. The program imparts critical life skills to the children of the University's contractual staff residing in nearby areas and enhances their prospects for a brighter tomorrow. The faculty and students at the University volunteer to impart classes to children to improve their computer and language skills. Besides, for all its workers, the University ensures that there is no instance of child labor across all its contracts. All labor compliances as per the Government norms are strictly adhered to.



4 Partnerships

Alumni Office

[Shiv Nadar alums](#) have a strong network across the world. The University's Alumni Relations Office was established in January 2015. The office takes care of alum engagement and maintains a communication channel with them, keeping them informed of the University's achievements and making them a part of the institution's future, not just its past. This strong alum relationship has contributed to sustainable employment and growth.

Career Development Center (CDC) and Placement Cell

Shiv Nadar University has a dedicated [Career Development and Placement Cell](#) to prepare students for employment. Through the center, the university-industry partnerships provide excellent opportunities to expose students to industry culture and better prepare them to start working at these companies

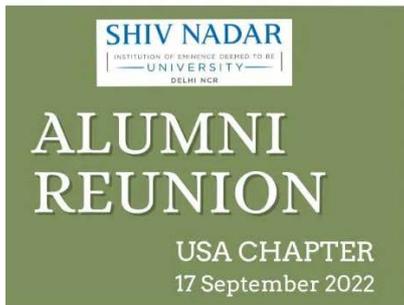


after graduation. Through these industry partnerships, students gain training in highly skilled industrial applications and the ability to navigate the treacherous industrial set-up. The University prioritizes providing several opportunities and

relevant options to students. These mutually beneficial partnerships can produce groundbreaking research and innovation that solves complex problems, drive economic growth, and create a more skilled workforce. Our partnerships intend to foster a sense of individuality and responsibility in our future employees. The university extensively collaborates with reputed industries for live projects, guest lectures, leadership talks, workshops, collaborative research, internships, and placement offers for our students, along with partnering with leading industry players in domains such as consulting, mechanics, science and technology, and telecommunication.

Shiv Nadar IoE collaborates with The Habitat Trust (THT)

Shiv Nadar Institution of Eminence and The Habitat Trust (THT) have signed a Memorandum of Understanding to contribute to the capacity building of students. Towards this, the University students have the opportunities to do internships and volunteer at THT, and the employees at THT have a chance to pursue a Ph.D. at Shiv Nadar IoE. The collaboration is also developing a course on conservation practitioners to be hosted at Shiv Nadar University. The course aims to provide Conservation practitioners with a deeper understanding of conservation issues while training them to integrate social and economic aspects into their work for a more significant impact.



Shiv Nadar Institution of Eminence is fully committed to the UN Sustainable Development Goals (SDGs). We have embraced a four-pronged strategy for SDGs through **teaching, research, our core institutional practices, and partnerships.**

SHIV NADAR

INSTITUTION OF EMINENCE DEEMED TO BE
UNIVERSITY

DELHI NCR

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