**Presentation of Best Practice No-01**

# **Title of the Practice**

**“Synergetic (Mindful) Multidisciplinary Young Innovations”**

S Systematic

Y Yield

N Novel

E Energetic

R Radical

G Gravity

Y Yearly

# **Objectives of the practice**

“Synergy”– a three-day-long yearly Techno-Festival of SGT University, is one of its best practices. It aims to synergize young minds in creativity and orient students towards multidisciplinary research and innovation across different faculties in developing prototype models of proposed solutions to challenges arising in daily life through workable scientific applications.

The technical extravaganza is intended to demonstrate projects in science, technology, and models from medical sciences, management, humanities, arts, fashion, and culture. Establishing industry linkages, patent filing, and entrepreneurial skills development are simultaneously encouraged as an outcome of Synergy. Synergy highlights participation in competitions with innovative ideas to attract and involve the audience.

# **The Context**

In Synergy projects are aligned with solution-centric applications deployable in healthcare, life science, journalism, urban development, agriculture and farming, food and nutrition, transportation and delivery of commodities, disaster management, and many more. Here the students find the right platform to showcase their creativity, coding, and problem-solving skills in building the proof of concept models. These interdisciplinary and technology-driven projects go beyond the regular framework of studies and curriculum of the students. It is also an opportunity for them to network with exponents and professionals from various industries, and official dignitaries during this technical festival of competitions and award-winning opportunities. The Synergy projects are classified into segments, like:

(1) “Health and well-being” for an individual, families, and communities,

(2) “Education & Society” – having educational aspects with no boundaries,

(3) “Technology and Innovation” facilitating process improvement and new product development,

(4) “Sustainable R&D” to create sustainable products.

# **The Practice**

 “Synergy” enables students to improve research and development activities with institutional support, which acts as a catalyst to motivate students for research and knowledge creation.

As a part of its uniqueness, contemporary social and other human welfare-related issues are explored by the students with an open-minded approach. The proposals are reviewed and shortlisted by subject experts for a simple solution feasible with the given framework that can be presented to a larger audience in a manner that is relatable and convincing in portraying models.

The open and fair hand-holding discussion with faculties and other cross-functional in-house experts makes the Synergy preparatory platform unique by sharing research ideas, and adhering to quality processes – irrespective of the complexities involved. The process also visualizes futuristic supports through the availability or setting up of incubation centers, proper policy implementation for consultancy by local entrepreneurs, and case building approach for extramural funding of research projects.

The projects are reviewed and shortlisted by subject matter experts considering the present and ever-increasing future of the industrial world relating to the industrial sector and encourage conceptualization and design thinking skills.

SGT University, as an HEI, facilitates proper infrastructure, allocates research grants and intramural funds, smooth administrative support, accessibility to e-resources, high-speed internet facilities, etc. The institute provides a separate and dedicated team to look after project activities including financial activities and procurement, thereby shouldering accountability for the project’s progress and allowing students to focus on development.

In Synergy students improvise projects streamlined into outcomes areas like (1) Innovative Agricultural Practices, (2) Healthcare Challenges, (3) Resource Management, (4) Alternative Energy Usage, (5) Waste Management, (6) Communication Technology Applications, (7) Gadgets for differently-abled people, (8) Environmental Concerns, (9) Eradication of Poverty & Hunger, (10) Efficient transportation and (11) Computerized diagnosis of human diseases.

The seeds of Synergy were sown in the year 2017 and were rolled out with an aim to synergize young minds to be creative and innovative by supporting students and faculty members for research and innovation. In a learning environment, our students explore and experience the numerous possibilities in the world today. The university invites students from various other educational institutions from Delhi-NCR to this technical feat to witness. Synergy held in 2017, 2018, 2019, and 2022 were visited by thousands of students from more than 300 schools and colleges in Delhi, at the SGT University campus, Gurgaon.

# **Evidence of Success**

Synergy was conceptualized to collaborate innovative concepts and fresh ideas that students can stage and demonstrate through their technical abilities. It is designed for students to think out of the box solutions to address challenges in the real world. Eminent personalities and judges from reputed universities like DU, NSIT, and industry leaders from IBM, Apple, Honda, and DRDO grace the judges panel.

In Synergy 2022, Haryana Governor Sh. Bandaru Dattatreya was the chief guest of the concluding ceremonies. Dr. Subhas Sarkar, Union Minister of State for Education and Sh. Atul Kothari National Secretary, Shiksha Sanskriti Utthan Nyas, were the guests of honor in the 3-days event.

It hosted over 22,000 students from 180+ schools and over 40 colleges across the Delhi-NCR region. In this magnum-techno-fest, rich technical innovations like MRI Gloves, Forensic Drones, Electric Bike, Electric Cycle, Electric Go-Kart, and Electric Vintage Car were displayed. Students also showcased various projects in the domains of robotics, electric vehicles, supplementary healthcare tools, and related gadgets.

The Synergy results and outcome envisage possibilities and conceptualizations of start-ups, new research initiatives, and readiness for extramural funding with the availability of prototypes – all with an attempt to make education employment and research-oriented, as oriented in the New Education Policy (NEP-2020). It also ensures quality education to students through hands-on exposure beyond the regular curriculum, thereby playinga significant role as an HEI and supplementing the amalgamation of technology, innovations, and research for wading towards ‘Atmanir bhar Bharat’.

# **Problems Encountered and Resources Required**

In this modern era of fast technological development, strengthening the research environment is important. SGT University is constantly striving to level such R&D needs for its students to facilitate

(1) practical learning (communication, writing, presentation, filtering study materials),

(2) mentoring opportunities to connect to industry experts having specific skills and knowledge,

(3) value-added support to researchers for first-hand experience with research projects

(4) instrument sharing with cross-faculties in time-division

(5) sustainable research result repository as a ready reference of experimental results, set-up, etc.

Implementation of Synergy, with such existing issues, tries to enable the resources through adequate funding, and provisioning of required logistics and infrastructure. Such initiatives by SGT University align with the vision of NEP-2020 of multidisciplinary research culture as the need of the times, bridging the academics, industry-oriented research, innovation, and digital transformation required in higher education in today’s context. Participants across educational fraternities with diverse academic backgrounds attended the technical festival to substantiate enhanced research scope among the students.

# **Notes (Optional)**

SGT University is passionate about grooming the nation’s youth into good human beings and excellent professionals with an aim to make our students innovative, inclusive, and extraordinary. In Synergy, students are encouraged to share ideas and best practices to promote cooperative action by sharing and caring, timely delivery, strengthening collaboration and removing implementation hurdles, develop an appropriate knowledge repository for reference to research-oriented results.

It also enables the students to experience connecting and collaborating with industries to understand new or improved products, provide enhanced services and productivity, public engagement and community reach out, and align research output to spawn an opportunity (growth, start-up, social cause). The three-day-long technical festival trends to promote and develop a research ecosystem to explore new functional and operational ideas of such a research ecosystem.

In general, Synergy strengthens the inquisitiveness of students towards sustainable research & development, and grooms them with technology and innovation, for new product development.

**Presentation of Best Practice No. 2**

1. **Title of the Practice**

**Social Cohesiveness for Education & Welfare**

1. **Objectives of the Practice**

The practice sets out to intend the inception and promotion of the concept of social values at the basic levels in the various disciplines of educational courses offered and all administrative divisions by SGT University. Such basic knowledge amongst students and employees equally leads to the objective of application of these social values in curriculum, extracurricular activities and special skill development endevours by the University. Propelling one’s career by remaining rooted to social concepts in the area leads to the development of socially connected and successful personalities with a team building atmosphere.

1. **The Context**

Connecting with the society out of one’s comfort requires steps towards initiation of such an approach, which forms the biggest challenge for an individual. The society, especially the rural one which marks no boundaries to human mankind, is a concept which openly welcomes visitors in the traditional Indian way – **अतिथिदेवोभव:**.The University believes in giving back to the society in the humblest possible ways, so that the society connects with each and every representative of the University. Role modelling by students, teachers can become source of inspiration for people who are present in the varied demographic society of our country. The steps needed to be taken forward are the most challenging aspect of the whole phenomenon. An important feature of social connect is reliability of the content and its sustainability, which requires another challenging aspect of logistic arrangements needed for appropriate outcome.

1. **The Practice**

The practice of Social Cohesiveness intends to take every student of the University to the grass root levels and apply the basics of their curriculum to the society at large. All the faculties organise social outreach activities so that every student can contribute to the concept. Connecting to the society can be done in many ways. Sensitizations of the group, their trainings, awareness development, up skilling and exposure to the culture at the University campus are some means. The Health Sciences faculties of the University also take special care in providing appropriate general health, dental health mental health and other allied health knowledge, consultancy, treatment and referral to all the members of the society at their doorsteps. An example of this is our endeavour in adopting Village Budhera and working through the University platform of *Community Action Group*/ *“SamajikVikas SGT KaPrayas”* in other nearby villages namely Khera Khurrampur and Sultanpur. The engagements involved in this practice are unique to Indian Higher Education both from the past as in Gurukul’ sand as deemed in future in lines with National Education Policy. This gives an apt opportunity to every student to imbibe the important concept of social principles and its applications for a better tomorrow. Some of our other specific endevours are sensitisation of farmers for crop protection, soil knowledge and better cultivation organised by Agricultural Sciences; Entrepreneurship skill development by all faculties; Nav Muskaan, a dental faculty initiative for cleft lip & cleft palate children; mental health initiatives by Behavioural Sciences; Environmental initiatives by Sciences; Legal & Constitution Counselling by Law; Technological initiatives by Engineering and Swachata Pakwada Initiatives. So much so, that our philosophy behind the practice led us to fight and stand tall in harsh COVID 19 times too. These all aspects somewhere help to bridge the societal gap existing in our country. The government authorities, though working as first line for all the sections of society, sometimes are able to execute policies with collaborative partnership with private educational institutions like ours. Our students have interacted with the society through sensitisations, door-to-door surveys, focus group discussions, workshops, nukkaad nataks and informal discussions. With the involvement of Community Leaders, the practice also has the flexibility of planning and execution as per the need of the society so that the best outcome is achieved which further leads to develop long lasting relationships between the society and the University.

1. **Evidence of Success**

The evidence of success for this practice is the health care engagements which have resulted in establishment of super specialty health care facilities at the campus and the ever-increasing utilization of all health services at the campus. To take note is the door-to door surveys undertaken at nearby villages with respect to oral health, general health, musculoskeletal and behavioural parameters. Health care facilities are being provided at minimal cost. Various faculties at the University have incorporated specific departments which deal with community outreach work targeting social causes. The departments have also been appreciated at various locations for their efforts. The culture is rapidly spreading among students who are also eager to engage in such activities like sensitisations, trainings, highlighting social causes & issues, technology support and skill development. More than 1700 activities have been organised by the University in collaboration with community and other organisations. We have been engaging in large number of activities with government organisations and through our NCC & NSS Units with special focus on drives like Swachh Bharat, BetiBachao Beti Padao and significance days. Our outreach efforts have been appreciated and recognized too by organizations like Special Olympics Bharat, Haryana Medical Council for service during COVID-19, Social Development and Women Empowerment Organization, Mahatma Gandhi National Council of Rural Education, Blind Relief Association, Colgate Palmolive India Pvt. Ltd.and National Centre for Rural Development, to name a few. All this somewhere also make the rural society of our country to become better and confident individuals at their skill so as to contribute to ever growing economy of the country.

1. **Problems Encountered and Resources Required**

Sometimes the mind-set of the society being engaged is an important factor in defining the outcome of the activity. The initial hesitance and level to which society members involve themselves becomes a big challenge. But perseverance and reinforcement with calm attitude has helped overcome these situations. Another problem area sometimes encountered is lack of financial support for social endevours. The University sponsors all the social activities but public or other private financial support may help us achieve sustainable goals on the social front. The ever-persistent realization on social matters is another challenge which beckons us as a group. Our cohesive resolute to patiently work for these social issues is the mantra behind our practice and our endeavor to be part of the larger national cause of - **आत्मनिर्भरभारत.**