

**Best Practice:01**

# Mathematical Applications in other sciences

## Oneday National Workshop

**Context that required initiation of the practice:** To highlight the importance of Mathematics and its application in other sciences such as Computer Science, Physical Science and chemistry.

computing is common thing between Mathematics and computer Science and gives scope to study the co relation.

Many things are shared by Physical Science and Mathematics and this gives ample scope to study their inseparable relationship.

Many theories in chemistry are deep rooted in Mathematics and gives rise to their common study.

**Objectives of the workshop:** To make the students realize “ Tad vedaanga saastranam Ganitham moordhanisthitam.” That means among all the sciences Mathematics occupies the top position.

To underline the interconnection between Mathematics , Computer Science physics and Chemistry as they share many things in common.

**The Practice:** On 21.12.19 One day national workshop on “ Mathematical Applications in other Sciences is organized by Mathematics, Computer Science, Physics and Chemistry departments in virtual lab. M.Sudhakar, lecturer in Mathematics welcomed the resource persons and other dignitaries. Afterwards he invited Dr D.Umarani, Principal (FAC) and resource persons to come to the Dias and requested Dr Umarani garu the chairperson to give her opening remarks on the workshop. Dr D.Umarani garu appreciated the organizers for their great effort in realizing the self sponsored workshop and conveyed her best wishes to all the participants. Later M.Sudhakar explained the significance workshop and requested Dr V.Nageswararao, Assistant Professor in Mathematics, University of Hyderabad to speak on the theme of the workshop.

Dr V.Nageswararao gave a vivid account of Mathematical Applications in day to day life situations and scientific appliances through power point presentation. Dr P.Chiranjeevi, another Mathematics professor from University of Hyderabad stole the show with his great presentation. P.Ramesh, Assistant Professor in Chemistry explained the Mathematical applications in Chemical graph theory, Stereo Chemistry,etc. R.Vijaya Kumari, Assistant Professor in Computer Science, Krishna University, Machilipatnam tried to establish relationship between Computer Science through computational thinking and Mathematical Applications used in Computer Science in finding out solutions to life-problems. Dr P.B.Sandhya Sri, Assistant Professor in Physics ruled the roost with her excellent presentation and bring home the participants of the workshop how Quantum Mechanics, SP theory and Theory of Relativity depend on mathematical applications. At the closure of the workshop

resource persons are felicitated and all the participants are given certificates by Dr D.Umarani, the chair person of the workshop.

**Obstacles faced :** Inexperience and limited funds are the main obstacles to the workshop. Inexperience is overcome by strong will to organize the workshop with team effort and experienced chair person Dr D.Umarani garu. A fee of RS. 100 is collected, from the participants which is a pittance when compared to the major chunk of the expenditure borne by Mathematics, Computer Science, Physics and Chemistry departments.

**Resources required :** An amount of Rs 24000 is the expenditure of the workshop which includes through and fro charges to the resource persons, mementoes, participation certificates, shawls and lunch and hospitality etc. It is equally shared by the organizers of the workshop.

**Impact of the workshop;** It helped the students to understand various mathematical applications in other sciences. It enhanced love for Mathematics and driven away fears and misconceptions from student-mind. Thorough knowledge and excellent presentations of the resource persons brought home the topic and had a great impact. This workshop is a milestone in the history of GDC Tiruvuru as no such workshop was conducted since the establishment of the institution in 1978.



## **Best Practice:2**

# NSS Special Camp @ Vamakuntla

## 2.1.2020-8.12020

### **The context that required the initiation of the practice:**

Quality in teaching and learning with value addition through social extension is the objective of the institution. In order to fulfill this the NSS unit identifies some village in pitiable condition every year and attempts to transform it. This year (2019-20) NSS officer Sri T.V.Durgaprasad resolved to organize a special camp at Vamakuntla, as requested by Sri B.Narasimharao, Lecturer in Telugu, localite of Vamakuntla. He chalked out an action plan for a week with following things to be done- Remove, construct, educate and eliminate, involve, evolve and solve.

### **Objectives of the special camp at Vamakuntla:**

1.To remove thorny bushes on the path to construct a road 2.To visit MPUP school, Vamakuntla to give tips to the villagers to do away with pinworms 3.To conduct a socio economic survey 4.To organize an animal medical camp and to distribute medicines to cattlemen 5.To take up swachha Vamakuntla drive. 6.To educate the public to keep their village clean. 7.To dig up drains to enable free flow of stagnant water 8.To dig a soak pit in MPUP premises 9.To conduct cultural programmes to encourage talent.

The Practice : NSS officer Sri T.V.Durgaprasad informed Dr D.Umarani, principal (FAC) about his plan to organize one week special camp in Vamakuntla from 2.1.2020 to 8.1.2020 and got her approval. Next he got the consent of NSS unit, Krishna university. On 2.1.2020 Dr D.Umarani, principal (FAC) announced the beginning of special camp at Vamakuntla. Sri T.V.Durgaprasad, the NSS officer, Sri J.Chalamprasad, lecturer in Economics, Sri B.Narasimharao, lecturer in Telugu, accompanied by a team of 50 spirited volunteers moved to village secretariat, Vamakuntla. They met village-heads Sri Hanumanthu, Sri Srinivasarao, Sri Chinta Satyambabu and Sri Goda Satyanarayana and organized an interactive session with pensioners. He revealed various social welfare schemes of the government and requested them to make use of them. Next he went to MPUP school, Vamakuntla to conduct a health programme A local health worker gave some tips to do away with pinworms. Sri Chandrasekhar MPUP (HM) requested the NSS team to dig a soak pit in the school premises and the NSS officer agreed. On 3.1.2020 NSS volunteers removed thorn bushes and tree branches spread on either sides of the road. It is a hectic task which asked a lot of dedication and unyielding spirit from the volunteers and they toiled till afternoon under the hot sun. In the afternoon session NSS volunteers made arrangements for animal medical camp. On 4.1.2020 Assistant Director Animal

husbandry (ADA) Sri Ramarao , veterinary doctors Mr. Abhilash, Mr.Udaykumar, Ms Swetha and veterinary lab officer Mr. Miriyala Gopala Krishna along with Gopala Mitras Mr.Nagendra Babu and Mr.Narendra Kumar visited the place. Sri Ramarao (ADA) explained methods of animal rearing and measures of disease prevention, followed by free medicine and nutritious fodder distribution to the cattlemen. On 5.1.2020 the NSS volunteers conducted a cleanliness drive within the college campus as for the sake of National Workshop on 6.1.2020. They strived to spring clean the campus. On 7.1.2020, NSS volunteers conducted a socio-economic survey on House ownership, Types of Houses, Family members (Elders and children), Adhar number of the house owner, Education, occupation, eligible old age pensioner and social welfare scheme beneficiary details, Valid Ration Card and toilet user details and suggestions to the government. On 8.1.2020 the NSS volunteers removed thorn branches to build a road for Vamakuntla villagers. Next went to MPUP school to dig a soak pit in the premises initiated by J.Chalamprasad and completed the task in no time. As it is the final day of the camp Dr D.Umarani, Principal (FAC), staff K.Visweswararao, D.Raghuramprasad, visited the camp to see the activities done by NSS volunteers. They watched children pledge in Sanskrit, recite the verses of Bhagavad Geeta in MPUP school. Dr D.Umarani principal (FAC) gave some cash prizes to the reciters. She explained the importance of education to children. In the penultimate session, Vamakuntla MPUP school children and some NSS volunteers danced to the movie songs and entertained everybody. In the concluding session Dr D.Umarani, principal (FAC) of the institution praised the NSS team for the excellent job at Vamakuntla and advised students to develop social consciousness to contribute to the rural development, environmental protection and eradication of social evils and blind beliefs deep rooted in the society. Sri T.V.Durgaprasad, the NSS officer in his valedictory speech thanked everyone for their great support in organizing the camp successfully.

**Obstacles faced if any and strategies adopted to overcome them:** Transportation, food and shelter to the 50 volunteers are the major obstacles in organizing the camp at Vamakuntla which is located 7 k.m away from Tiruvuru. Sri T.V.Durgaprasad, the NSS officer able to overcome the obstacles with the support of B.Narasimharao, the localite of Vamakuntla and heads of the village.

**Resources required:** Invitations , doctors, Gopala Mitras Programme sheets , NSS banner, digging tools Socio economic survey forms etc are resources required for the camp and got ready by NSS officer Sri T.V.Durgaprasad, J.Chalamprasad and B.Narasimharao.

**Impact of the practice:** Students learned to spare some time for social cause in addition to the routine studies. They imbibed NSS motto “ Not me But you” and took care for others’ needs such as removing thorn branches , constructing village road, digging soak pit to retain ground water level and thus contributed to the rural development. They learned to work together and showcase their talents at a right time. They created a positive image on public funded institutions with their modest, decent and ever ready to serve behaviour.



