

WORKSHOP SCHEDULE

Day	Program	Location
1	Brief Introduction on Casting Technique and Design Principle	KU-SOE
2	Wax Modeling	KU-SOE
3	Channel Making and Moulding	KU-SOE
4	De-waxing and Mould Baking	KUart
5	Metal Casting / Submission / Presentation	KUart

The detailed information about the workshop program can be found on www.ku.edu.np/ttl

Sculpture/Turbine



ADVISORS

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WORKSHOP COORDINATOR

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INSTRUCTORS

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SAMYOJAN

A NEW DIMENSION

Workshop on ARTENGINEERING
through Lost Wax Metal Casting

11th-15th June 2012
Dhulikhel & Kathmandu, Nepal

Organized by

Turbine Testing Lab
Department of Mechanical Engineering
Kathmandu University

In association with

Centre for Art and Design
School of Arts
Kathmandu University

INTRODUCTION

Metal Casting is one of the ancient but advanced processes in the field of world art and engineering. From ancient Egypt to this date, Lost Wax Technique has been most preferable process in Metal Casting for creating arts and for designing engineering appliances. As per found evidences in Nepal, since 6th century A.D. Lost Wax Technique has been used in Metal Casting for miniature and monumental sculptures till now, this represents the superior example of art and engineering in Nepal. Since Rana period of Nepal, Metal Casting Process has been also started to apply in architecture as interior and exterior design as well as in weaponry and pure engineering design like power house, water pipe-line, bridge construction, rod manufacturing and other engineering appliances.

At present Nepal, main application of Metal Casting is limited only into the field of art. Despite of several applications of the casting process in engineering field as well, the proper utilization has not been achieved so far. There seems lacking casting design concept in the

Pouring Molten Metal



field of Nepali engineering however in contrast, Nepali art and design field is also lacking of engineering techniques gradually. This could be happened due to the establishment of diverse schooling as two diverse fields in the world education. In fact, art and engineering are very much linked subjects and without the idea of art and design, engineering field of Nepal could not be evolved and without the implementation of engineering techniques, Nepali art and design could not be visualized. Hence, the idea of short collaborative "Artengineering Workshop" between the students of art and engineering has been worked out through the workshop on Lost Wax Metal Casting Process.

OBJECTIVES

- To be educated on the ancient but advanced process of metal casting.
- To be provided the alternative medium and technique as cast metal for art and engineering appliance.
- To share the knowledge of art and engineering between two diverse students of art and engineering.
- To collaborate the design concept and engineering techniques between the students.
- To produce variety of creative art works and designed engineering works using a single technique of lost wax metal casting at least in ground level.

TARGET GROUP

This workshop is planned for 50 participants (20 students from SOE, 20 students from SOA, 5 staffs from TTL and 5 staff from SOE). The workshop comprises of theoretical as well as practical aspects of metal casting with hands-on experience on casting of 10 different products by lost wax process.

ELECTIVE THEMES

- Turbine System
- Creative Art/Design
- Industrial Product
- Innovative Thought
- Experimental Approach

DURATION

Five Days

REGISTRATION FEE

Rs. 500 per Participant

A Five-day long **Artengineering Workshop** concluded in Kathmandu University on 16 June 2012. School of Engineering Turbine Testing Lab had organized this workshop in association with the Centre for Art and Design of School of Arts of Kathmandu University.

The main objective of the workshop was to transfer competence of advanced methods of metal casting techniques being practiced in Nepal to School of Engineering and School of Arts of the University with prospects of industrial applications.

Inaugurating the Opening Ceremony, Mr. Kishore Thapa, Architect Engineer & Secretary of Ministry of Education, expressed a satisfactory remark over the contribution of Kathmandu University. The University is expanding by all means on its capacity being a role model in higher education of Nepal. Thapa exclaimed that the philosophy of aesthetic appeal does work for consuming the products in the market. This workshop would be a milestone for expanding participant's knowledge of art, culture and technology together for manufacturing production, he added.

Vice Chancellor, Dr. Suresh Raj Sharma recalled KU's initial days when university was designing interdisciplinary courses on its academic programs. The purpose of these courses was to make students capable with innovation and creativity in their discipline. He encouraged the participants for acquiring technical and professional expertise in the field of metal casting techniques and hoped that the workshop will be able to assist them to make durable industrial applications.

Prof. Dr. Bhola Thapa, Dean SOE welcomed the guests and the participants and expressed that this is the beginning of such type of program where students of Arts and Engineering acquired artistic and creative knowledge together. We are committed to launch such type of combining programs in future, he said.

Mr. Biraj Singh Thapa, Coordinator of the workshop and In-charge of Turbine Testing Lab, outlined the program and projected the possibility of its implementation area. The Workshop would be worthy for the students who are involved in Engineering, Art and Designing profession.

Concluding the inaugural session Prof. Dr. Bhadra Man Tuladhar, Registrar of Kathmandu University expressed vote of thanks to the chief guest and the participants and wished all success of the program.

25 students from School of Engineering, 20 students from School of Arts, and 10 technicians from School of Engineering participated in the workshop. Mr. Tejesh Man Shakya, Mr. Kriti Man Shakya and Ms. Swosti Rajbhandari from Department of Art and Design, School of Arts were the instructor of this five day long program.

The participants got an exposure to casting techniques and design principles, wax modeling, channel mixing and moulding, de-waxing and mould baking, and metal casting. The cast products prepared by the participants were demonstrated during closing ceremony to the Chairperson Dr. Mahesh Banskota, Dean, School of Arts. The certificate was distributed to all the participants and technical team jointly by Prof. Dr. Bhola Thapa and Dr. Mahesh Banskota. Special guest of the closing ceremony Mr. Tej Ratna Shakya, an experienced and retired craft man of Nepal was acknowledged for his life time service to preserve and promote the ancient techniques of metal casting practice in Nepal.

Concluding the closing ceremony Dr. Mahesh Banskota, Dean, School of Arts said that the workshop brought the people working in two different fields together for accomplishing creative work. He expressed vote of thanks to Prof. Bhola Thapa for taking an initiative to conduct such inter disciplinary and innovative work. He also expressed his interest to work together on such activities in future as well.