

**BVB College of Engineering and Tech and University of Massachusetts, Lowell (UML) Student exchange program. Held at BVB Hubli from January 5 – January 16, 2014.**

**What is this about?**

The Manning School of Business at University of Massachusetts, Lowell, in collaboration with BVB College of Engineering and Technology (<http://www.bvb.edu>/Hubli, India) conducted a Study Abroad Program from 5<sup>th</sup> January to 16<sup>th</sup> January 2014. Nine (9) students from UML joined 30 students from BVB College in an eleven-day experience in Entrepreneurship learning and multi-cultural, multi-disciplinary activities

The host college, BVB College of Engineering and Technology is a 5000-student higher education institute offering education in 11 different engineering and management disciplines. Prof. Nitin Kulkarni, BVB College faculty, who co-taught with the UML faculty.

**Participants:**

There were 9 students from UML participated in this program: 4 MBA, 2 undergrad business school, one graduate nursing school and 2 undergrad nursing school students.



From the host college, 30 students joined UML students, representing 9 engineering disciplines: 5-Robotics; 4 Civil; 3 Industrial; 6 Comp Science; 9 mechanical 3 others. It was a very interesting and beneficial mix of students!



All 39 students stayed at the Scholar's House on campus, a facility with comfortable accommodations and amenities. Students had their meals served at the House, enjoying typical Indian dishes for breakfast and lunch.

**Purpose:**

Primary purpose of this program was to offer a combination of learning experiences: academically, provide an introduction to innovation and entrepreneurship in a multi-discipline, multi-cultural setting. It offered 3 credits towards a student's degree program.

**What did students do:**

From the time students arrived in Hubli (mid afternoon January 5), they were busy until leaving Hubli on January 16<sup>th</sup>! Students learned principles of innovation and entrepreneurship in a very interactive class discussions, including case studies; basic concepts; global entrepreneurship; process and entrepreneurship components such as marketing, financing, business model, building Team and most importantly presentation skills. A typical day included morning discussion and instruction about the basics of entrepreneurship (concepts, examples, process, etc.) followed by afternoons of exercises and projects.



### - Class Exercise

Class exercise covered Ideation process where teams of 4-5 students were asked to look at



familiar products (in daily use), identify primary and secondary applications, basic needs served by the product, problems or deficiencies in the product and generate ideas to solve them. They presented their work to the class, which was a rewarding experience.

### - Technology Commercialization Project



Students worked on Technology Commercialization projects which were based on students' capstone work, from the US and from India. There were 7 such projects:  
Robotic Feeding



Arm; Water Purification; Text-to-Speech; Sensory Driving Simulator; Home Automation; Plant Disease Identification; and, Service Robots. US students were teamed with India students. They were given instructions on what to evaluate, how to structure (using Business Model Canvass methodology) their work and prepare a report, and a presentation, with their recommendation. Students worked in-class and outside class, spending many hours researching, analyzing data, discussing and sharing ideas and, having fun! They bonded so well, as if they knew each other for ages!

Students made their presentations on last day of this class. This was a highlight of the program as students presented with such confidence and enthusiasm. There was a marked difference between their first day presentation and last day. It was very evident that they not only grasped basics of entrepreneurship but also learned how to work in teams, share ideas and be able to communicate. Mrs. Jayshree Deshpande, Founder of Deshpande Foundation, visited us while students were working on their projects. She went through all 7 teams, probing students them about their projects. Students appreciated much her interests in their work.



### - Guest Speakers

Students had an opportunity to listen to several guest speakers, all entrepreneurs. Raj Melville, Executive Director of



Deshpande Foundation spoke about his ventures as well as other examples to elaborate on class room discussions. He attended most of sessions during our first week.



3 guest speakers included entrepreneurs who have established their businesses within BVB College incubation facilities. These businesses included solar power, biologics and signal processing. BVB has an interesting incubation facility that houses both on-going businesses as well as new ventures. There are 17 such companies and their goal is to have 30 in next 2 years.



On their last day, students presented their projects and they had an opportunity to interact with Desh Deshpande, who sat through first presentation. He was very impressed with what students put

together in such short time. His feedback and comments encouraged students to think more about entrepreneurship and more importantly, think entrepreneurially.

#### - **Company Tour**

Arrangements were made for students to visit Tata MarcoPolo Motors, Ltd., a bus and coach manufacturing plant located in Dharwad. A production manager and alumnus of BVB College met with the students to provide a brief video and overview of the process. Students were then allowed to tour the plant where they could see the entire production process from chassis to finished vehicle. Of particular interest to the students, both during the introduction and tour, was the use of self-managed teams. Wherever we went on the tour there was signage relating to team goals and successes. Employees meet at the start of every shift to determine the goals for the day. This was the first time many of the students had seen evidence of teamwork in the real world and they were very interested in learning more about the self-managed teams. One UMass Lowell student noted, *“The manager made us aware that since Tata Marcopolo went to self managed teams, productivity and worker morale has increased dramatically.”* Of note to our UMass Lowell students was the lack of ventilation and respirators in the painting area, something they realized would have been handled differently in the U.S. Students indicated it gave them a new appreciation for standards in the U.S., while acknowledging that manufacturing is different in other global regions.

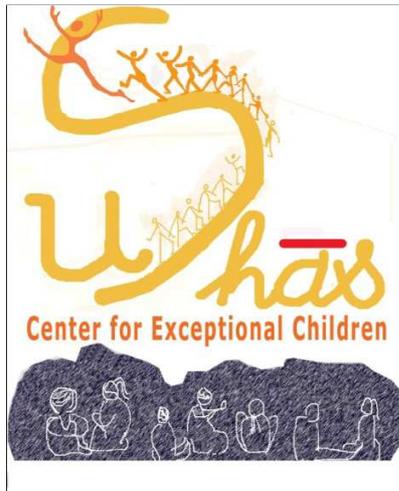


#### - **Visit to Social Enterprises**

It was the first outing with UML and BVB students on 10 January 2014, and the place of visit was, USHAS – a school for mentally challenged students. Students drove in a school bus and the short trip took 'em to a structure that least resembled a school.

Students got curious to see a well groomed horse under a tree right in the front yard. Soon they came to know that it is used a part of motor control therapy. Discussion with Ms. Seema who received the students at her office briefed on the genesis of this school.

USHAS was founded in 1991 by a group of individuals committed for a cause. It was registered as a Public Charitable Trust. USHAS provides children with mental disability an opportunity to learn the basic skills needed for living. It empowers them to be more abled and make them capable to be mainstreamed into this society. The basic tenet of USHAS Centre for Exceptional Children is to facilitate in improving their capabilities and make them release their potential and integration. (from Website: [www.ushas.org](http://www.ushas.org))



Students were all impressed by the systematic and the scientific ways adopted to enhance the learning of these kids. Also, networking with local doctors and physiotherapists is the key to the success of this school. Students of USHAS get access to these professional services regularly.

It was a humbling experience to see young kids, young adults learning, playing and eating together. BVB-UML students interacted with many USHAS kids and spent time with them.

USHAS kids also make variety of soaps and paper products and sell them to make money. Part of the money is shared with students.

USHAS needs about INR 15 Lakhs (USD 25,000) each year to keep it going. Funds are sought from well wishers, philanthropists and donors and there is no government aid to run this school.

Many BVB-UML students were contemplating on building teaching aids to USHAS children such that they find learning more interesting and effective.

#### - **Cultural Sites**

On Sunday, students rose very early to visit some cultural sites including Aihole and Badami, UNESCO potential World Heritage sites. It was a long bus ride, close to 5 hours one way, but the students made the most of it by singing, and even sometimes dancing, in the bus aisles! Snacks were provided by some of the BVB students and were a real treat for our UMass Lowell students. Though it was a long bus trip, it allowed us to see the countryside and villages. We saw the harvesting and drying of corn and hot peppers, along with the cutting of sugar cane. At several of the sites we found people selling fresh young chickpea plants. It was explained to us by the BVB students that these are eaten green as a snack.

BVB College had arranged for an English speaking tour guide at Aihole and he told the students of the building of Durga temple during the 8<sup>th</sup>-12<sup>th</sup> century. It was interesting for the students to stand in this place and realize that at one time it had been the capital of the Chalukya civilization. From an architectural standpoint, there were many models of architectural styles, with students being able to view the model and the finished product at once.



Following a traditional Indian lunch at Hotel MayuraChalukya, Nitin asked the students if they would like to see the caves at Badami. This was met with a resounding, “Yes”, and the group continued on to the site. This was a good decision, as this was one of the most interesting sites for the all of us. The caves were cut into the mountainside with a lake situated below. The



completion of the caves varied, depending on the length of life of various rulers. At this site there were numerous monkeys, and students learned to be wary of offering them anything, as the monkeys were accomplished “thieves” that would take anything they could get their hands on!

A UML Nursing student stated, *“Touring Karnataka to visit Badami and the other temples was another highlight of the trip. These were the oldest places I had ever been; standing on those grounds was humbling experience. I enjoyed hearing the details of the carvings and sculptures at these cultural sites. Beyond touring the temples and cave, the journey traveling to those destinations also shed light on rural life in India.”*

Here, and almost everywhere we went that day, there were scores of schoolchildren touring the different sites. They were quite eager to learn where we were from, and to ask to take a picture of us. It was both wonderful and humbling to see the children. The BVB students told us that many of the children attend school because they know they will receive one hot meal a day. I don’t think any of us will soon forget our experiences.



The cultural site visits helped further the bonds between BVB and UMass Lowell students. One of the BVB students said, *“Oh! What fun it was mingling with the UML students, communicating with them, explaining to them our culture and our ways. From introducing them to our food habits to taking them shopping for Indian stuff, everything was enjoyable. They were fascinated by our*

*cultural and tradition which made us to feel proud of our country custom and traditions.”*

### **Nursing Site Visits**

Three nurses from UMass Lowell travelled with us on this trip. BVB College graciously made arrangements for them to visit K.L.E. Hospital and Nursing School in Hubli. The nursing students were very impressed by the state-of-the-art hospital and teaching labs, and they warmly welcome they received from the faculty. They also learned of the dual system of hospital care where there is one side for private patients and the other side for public patients. They noted that the private side maternity ward delivers 5-6 babies a day, where the public side delivers 25-30 babies a day. Despite this discrepancy, they indicated that they saw a high level of care at the hospital. An undergrad nursing student stated, *“The visit to the nursing school/ medical school/ hospital was incredible, and definitely one of the academic highlights of the trip. The day was set up very well. We had a cab driver all day, chaperones, and people to meet with when we arrived at K.L.E. Our hosts were very hospitable and spent all day showing us their facilities. If this program continues next year, I recommend any healthcare professionals go on this day trip to K.L.E. It was very enlightening.”*

### **Student Feedback**

At the end of the experience, we asked all the students to participate in an online survey, and we had 100% participation. The following are some of the student questions students answered, along with supporting data from their reflection papers. The survey results are also in the appendix.

One of the purposes of the class was to ensure that students understood the need for collaboration in entrepreneurship. This is not something the BVB students had experienced before, and the UMass Lowell students had never worked with students from other colleges on teams. To the question: *The team project helped me to understand the need for collaboration in the entrepreneurial environment—63% strongly agreed and 28% agreed.* A BVB Robotics student stated, *“We engineers always think in technical aspects. We were hung (up) on the technology. How it will work? Do we need to change it? How we can change it? The time spent with team for group project and activities were precious.”* This had a positive effect for the UMass Lowell students, too. One UMass Lowell MBA student stated, *“The part that I found most interesting was the different perspectives from the different disciplines. The engineers wanted to fix the problems whereas the business students wanted to take a much more methodical approach and the entrepreneurs wanted to spend more time of the idea-generation aspect.”*

One outcome that we had hoped for was to have the students understand what it means to work as part of a global team. We asked the question, *“The team experience has enabled me to better understand the need to communicate in cross-disciplinary teams and cross-cultural teams.”* Our survey showed that 83% of the students strongly agreed, while 13% agreed. One UMass Lowell MBA student stated, *“This Study Abroad Program gave an opportunity to put many of the*

*business practices and skills we have been learning in this and other courses in a real-world application as well as an opportunity to challenge leadership and management strategies we have studied into action.” A BVB robotics student backed this up by writing, “For the first day when I met my teammates I was having mixed feelings like how to communicate well with them, how to impress them with my ideas and also how to express ourselves in front of others especially when you have a US student in the group who is very much intelligent and quick in grasping things and efficient. But as the days pass by, I was really happy with my team formation and in fact felt lucky to get such a team to work with. I had a good communication with them, the different ways of identifying a problem; everything was just amazing for me. Even though we had some small issues like arguing, misunderstanding and everyone sticking to their own problem that they wanted to address. We never felt like breaking the team or just changing the team, it’s just the sporting spirit that everyone in the team has that made us decide on one particular problem and work on it in terms of business point of view.”*

Throughout the course, we utilized entrepreneurial guest speakers to provide the students with real-life examples of entrepreneurship. These included: Gururaj “Desh” and Jaishree Deshpande—Deshpande Foundation, Raj Melville—Deshpande Foundation, Balbir Rao—engineer, IT, Solar Systems; VinayKonaje—Navya Biopharmaceuticals; VivekPawar—Entrepreneur; and Guarav Shah—Seven Beans. The survey asked the students the question: *Guest speakers provided relevant information and experiences. Results showed the 56% of the students strongly agreed, while 41% agreed.* It seems the favorite speaker for most of the students was Guarav Shah, Founder of Seven Beans, a coffee bar with a unique twist on the experience. One UMass Lowell nursing undergrad stated, *“The owner of Seven Beans was very inspiring. He was very young but took a chance, and that chance led him to success. I had the opportunity to go to Seven Beans after the lecture. This was a great opportunity to see his words in action. He gave me a little tour around the place and told me the stories and background of many of his business and décor strategies. It took his lecture to another level for me.”* A BVB electrical engineering student took away this piece of information: *“He motivated (us) to disregard those people who discourage and to always stay focused. I learn(ed) another remarkable quality of an entrepreneur, never be late to the market. He said ‘Always get going, because if you wanted to do something, that was yesterday’.”*

The technology project was a key piece of the curriculum. Students had to research a particular field and provide information about the market for their product. In the survey, we asked students if they now understood the *value of market research*. *Over 74% stated they strongly agreed, with 21% of students saying they agreed.* A BVB mechanical engineering student said, *“I now fully understand, that when we design a product we must keep in mind to whom the product is targeted, availability of resources, minimum cost of fabrication and maximum functionality.”* Another BVB robotics student stated, *“The sharing of the knowledge and finding for the target customers and how to derive a common solution was the key important factor which every team handled successfully.”* Finally, one BVB mechanical engineering student

wrote, *“The most important part I had learnt from the project is the collection of the market research data. I now completely understand the importance of the market research data for entrepreneurial success and developed the ability to collect the market research data.”*

Several BVB engineering students commented in their reflections on the help they received from the UMass Lowell students regarding report writing. Many felt it help them improve their skills in writing and presenting. Comments by several BVB students included:

- I was learned from UMass Lowell students that they don't copy the data from a random source and paste it. We here do that. But now that we have been with them, we all have given up the thought of copy+paste which we all here follow proudly.

As a follow-up to this, a BVB student made an important observation in how they were able to help the UMass Lowell students.

- The second big challenge was to make the management students understand about the product, because it was essential for everyone of us to know thoroughly about the product and about its strengths and weaknesses. In this process I learned the art of explaining a technology project to a person with non-technical background, which I believe is very essential for an entrepreneur.

As seen in the students' comments, learning took place in all areas of the experience.

In closing, I am posting two students final comments on their reflection papers, to capture the spirit of the exchange that so many of the students experienced.

BVB Student: ” I opted this course with the expectation of learning how to establish a start-up and the tools required to nurture it. This course has met my expectation and equipped me well to face the challenging world ahead. To summarize it in nutshell; it taught me:

1. How to start a new venture
2. How to keep it going
3. How to collaborate and grow

This was indeed a very amazing program which has helped me in numerous ways for my overall personal development.”

UMass Lowell student: To sum up my India Study Abroad experience in one word, I would say – Awesome. I have never had such an immersive and expansive experience in my life. That may seem like I'm blowing smoke in your face, but I feel that way to my very core. I had never seriously considered a study abroad program, but when the opportunity presented itself this time, I took the chance. India seemed like a very exotic place and I was not disappointed. I was surrounded by sights, sounds and smells that, at first, were overwhelming. But after a few days,

I settled into a routine and my appreciation for the people, my surroundings and the learning

experience grew exponentially.



## **Student Exchange UML – BVB (Hubli) India Summer 2014 Program. the American Experience!**

### **Background**

In January 2014 Winter session, 9 students from the Manning School of Business and Nursing School travelled to Hubli India and went through a 2-week Entrepreneurship program with 30 students from BVB College of Engineering and Technology. This experience was very enlightening to students and encouraging to the faculty. Based on student feedback and a strong desire to continue a collaborative relationship between UML and BVB, a similar program is planned to take place in summer (from June 16 to June 27) in Lowell, MA.

### **Proposal**

Conduct a 2-week of Principles of Innovation and Entrepreneurship Workshop at UML in Lowell, MA.

- UML Students: will target students from Business, engineering, Science and Health colleges.
- Students participating in *DifferenceMaker (UML)* program may also participate
- Students from the area community colleges will be invited to attend
- BVB students will be from different engineering and management studies disciplines. They will be Workshop Participants.

### **Logistics**

*Lodging and boarding* - Students from BVB will stay at the Fox Hall dormitory.

Breakfast and Dinner will be provided in the dormitory. Lunches will be in Southwick cafeteria

*Classes* – classes will be held in North Campus (Pasteur or Falmouth) class rooms. Students may go to Haverhill to attend one or 2 classes on Strategic Management

*Transportation* – Transportation from/to airport for BVB students will be arranged by UML. Local transportation to company visits and other sites for all students will be arranged by UML.

### **Costs and Funding**

*Lodging & boarding* and *Transportation* for BVB students will be provided by UML.

### **Program Content**

Below is the Daily Activity schedule. Typically, morning sessions will be classroom lectures, discussion and guest speakers. Afternoon sessions will be class exercises (Idea Generation) and Group Projects (Technology Commercialization).

Entrepreneurship case studies covering different types (start-up, intrapreneurship and social) will be extensively used to make students grasp basic concepts of entrepreneurship.

Visits will be scheduled to several area technology companies. Students will be offered opportunities to meet Entrepreneurs and see in action Entrepreneurship.

A visit to M2D2 facility and its incubator and Cambridge Innovation Center will provide students with real life examples of incubator facilities and how they operate.

## Attachment 1

### Schedule of activities:

Day	Morning		Afternoon	
	Activity	Faculty	Activity	Faculty
June 15			Orientation/Introduction	BVB/UML
June 16	<ul style="list-style-type: none"> <li>Introduction to Innovation &amp; Entrepreneurship</li> <li>Guest Speaker</li> </ul>	BVB/UMass Lowell	Class exercises (groups of 3 to 4 students)	BVB/UML
June 17	<ul style="list-style-type: none"> <li>Lecture: Entrepreneurship in Global Economy and Entrepreneurship Forms</li> </ul>	BVB/UML	Class exercises (groups of 3 to 4 students)	BVB
June 18	<ul style="list-style-type: none"> <li>Attend Marketing Class</li> </ul>	BVB/UML	<ul style="list-style-type: none"> <li>Visit to M2D2</li> <li>Guest Speaker</li> </ul>	
June 19	<ul style="list-style-type: none"> <li>Essentials of entrepreneurship and the Process</li> <li>Guest Speaker</li> </ul>	BVB/UML	Group Project (groups of 3 to 4 students)	BVB/UML
June 20	<ul style="list-style-type: none"> <li>Attend Starting New Venture class (Haverhill)</li> </ul>	BVB/UML	Visit Boston/Cambridge (Innovation Center, MIT)	UML
June 21	Explore Lowell (visit National Park, canal tour, textile museum)			
June 22	Explore Boston (Freedom Trail, Science Museum, etc.)			
June 23	<ul style="list-style-type: none"> <li>Attend Managing Teams class</li> </ul>	UML	Group Projects (groups of 3 to 4 students) <ul style="list-style-type: none"> <li>Guest Speaker</li> </ul>	BVB/UML
June 24	Field visits to area Technology companies			
June 25	<ul style="list-style-type: none"> <li>Attend Professional Communications class</li> </ul>	BVB/UML	Group Projects (groups of 3 to 4 students)	BVB/UML
June 26	Students complete their assigned projects	BVB/UML	Student presentations	BVB/UML
June 27	Student feedback			