



Information eBrochure

BITS Development Initiative

February 6-9, 2009



Invitation

Dear Sir/Madam,

As part of QUARK 2009, the national technical festival of BITS, Pilani – Goa Campus, we have launched a BITS Development Initiative. The Initiative targets some of the Millennium Development Goals set by the United Nations.

We would like to invite you to be a part of this development initiative taken up by the students of BITS, Pilani – Goa Campus. It is being conducted in an institutional association with the Directorate General, Factory Advisory Services and Labour Institutes (DGFASLI), Ministry of Employment and Labour, Government of India; and the United Nations Information Centre (India and Bhutan), New Delhi.

The Initiative comprises of a series of panel discussions and seminars on the concept of eco-innovation, a seminar on Occupational Safety & Health and a Model United Nations aimed at breaking down global barriers. These are scheduled to be held between February 6 and 9, 2009.

A brief description of the BITS Development Initiative has been given in the following pages. Registration for participation also requires an optional response to the Questionnaire in this Brochure. The topics mentioned on this brochure are subject to change as per the response to the questionnaire.

The participation fee per corporate representative is INR 7,000* only (Maximum of 5 representatives per Corporate house). Kindly fill in the Registration form given at the end of this eBrochure. The last date for receipt of registration forms is February 2, 2009. In case you would also want to set up a corporate stall at the venue, an additional amount of INR 25,000* will be charged.

We look forward to your esteemed presence at the Seminars.

Thanking you,
Yours Sincerely

BITS Development Initiative 2009 Team

(*) – Payable by a Demand Draft in favour of "BITS, Pilani – Goa Campus" payable at State Bank of India, BITS, Pilani – Goa Campus Branch (Branch Code: 10720) and couriered to –

The Managing Committee
BITS Development Initiative (QUARK 2009),
BITS, Pilani - Goa Campus,
NH 17B, Zuarinagar - 403726
(Goa/INDIA)



Vision

The world has seen a lot of growth in the last few decades. As we, the world and more importantly, India as a nation, are poised on the brink of progress, we must rework our concept, our understanding of “development”. Our world consists of more than six billion individuals. The world needs to include all these individuals into the fold of “Development” as we forge ahead into a brighter future.

We, the students of BITS, Pilani – Goa Campus, as responsible citizens, and more importantly as denizens of One World, have initiated the BITS Development Initiative. The Initiative aims at satisfying some of our ideals and bringing together a new era of thought in the spirit of wholesome development.

The United Nations, in their Millennium Goals have stated eight objectives. We, after careful consideration have chosen three. In gist, they are the following.

- 1) Alleviation of Poverty under which comes the point of employment and better working conditions
- 2) Sustainability and improvement of the Environment
- 3) International Cooperation towards improving the living conditions of people the world around.

We felt QUARK 2009, being the forum for thousands of students to showcase their talent, a confluence of some of the brightest young minds in the nation was the best platform to initiate a change. As we progress towards a Technical Renaissance, we hope that our small effort, our BITS Development Initiative is responsible towards inspiring the smallest spark of new innovation, of new thought, the same spark that will blaze our path to a bright future.



Objective

We have defined our vision, that of an ambitious tomorrow. We, as students, have done the little we can through what we felt was the best medium of change – awareness.

Of the three Millennium Development Goals we have chosen, the first is that of the **Alleviation of Poverty**. Though too large a problem for us to tackle directly, we have focused on one of the sub-points as elaborated by the United Nations, that of Occupational Safety and health. New technologies bring to light more hazards, more toxic emissions, and hence endanger the health and lives of workers. This situation is prevalent in a lot of industries. However, a conscious Indian Industry and a responsible Corporate World have taken a lot of effort to improve the working conditions in all sectors.

Our Seminar on Occupational Safety and health is being conducted in association with the Directorate General, Factory Advisory Services and Labour Institutes (DGFASLI).

The second is **Sustainability of the Environment**. The last few years have witnessed an alarming increase in pollution, in the poisoning of our waters and the growth of toxicity levels in our environment. So much so, that in spite of strict impositions and laws, rules and regulations by governments across the world, things have not improved much. The world has felt the need for technology combined with “green thought”. Companies and industries from across all sectors have been encouraging innovation in the field of green technology so as to progress towards the creation of a better, greener, safer world.

Towards this end, we at QUARK 2009 have attempted a Technical Renaissance, a reworking of thought and action, as we strain the barriers of engineering perfection towards new horizons. As part of QUARK 2009, we at BITS, Pilani – Goa Campus, have initiated a **Techno-Bionomics Initiative**, a movement to infuse into education social awareness and green consciousness. We believe, as the engineers of tomorrow, that the mantle of responsibility of bettering the world falls squarely on our shoulders.

Our Eco-Innovation seminar provides a forum for interaction between the corporate world and students, to showcase new developments in the field of green technology.

The third is International Cooperation. In today’s days where international tensions escalate so easily, international cooperation is the need of the hour. For this purpose, we have convened a Model United Nations as part of QUARK 2009. Through discussion and debate, in a moderated environment, with us as representatives of nations, BITS MUN hopes to help the youth understand international relations better. Our theme has been aptly chosen as “Breaking down Global Barriers”. This focuses on bringing nations together in fields of communication, technology, mutual aid with an ambitious long term dream of “One World for Humanity”. The organs represented are The Security Council, The General Assembly, The Economic and Social Council, World Bank, International Court of Justice and The United Nations Environment Programme.

We conduct this Model United Nations in association with The United Nations Information Centre.



Seminar on Occupational Safety & Health

The year of 2009 has been declared by the Government of India as “The year of Occupational Safety and Health”. The United Nations, under their Millennium Development Goal of Alleviation of Poverty have mentioned Safe Working Conditions as a necessity which all countries should work towards.

Hence, as part of our BITS Development Initiative, we will be hosting a Seminar on Occupational Safety and Health at QUARK 2009.

The Seminar aims at discussing several vital topics, with a vision of spreading awareness about occupational safety and health in various industries.

Topics of discussion will stretch towards all sectors, with a focus on stringent standards, emergencies that might occur and how we can prevent and provide help and assistance and on the role of the corporate world in enforcing occupational safety and health standards. Control of particulate matter emission will also be focused upon. In several industries, the health of the worker is affected no matter how stringent the standards imposed are. A discussion on how to reduce the risk to workers in these sectors will also be held. Attention will be paid to the financial aspects of occupational safety and health concerns, and how vital it is to industry today.

The seminar is organised in association with DGFASLI (Directorate General, Factory Advisory Services and Labour Institutes). We thank them for their association. Together, we hope to bring about awareness to the academic and the corporate world about the need and importance of occupational safety and health standards.



Eco-Innovation Seminar

The Eco-Innovation Seminar hopes to discuss several topics relating to progress in the field of Green Technology, its importance, and its future prospects.

A tentative list of topics classified sector-wise has been provided. The topics will be modified if necessary based on the feedback we receive from you in the form of answers to the Questionnaire attached after this section.

General

1. Campaign to reduce Carbon Footprint: The carbon footprint is a "measure of the impact that human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide". These gases are produced by the burning of fossil fuels for our everyday living. A reduction of Carbon Footprint effectively signifies reduction of emission and pollution in the region.
2. An effective alternative to plastic.
3. Emerging trends in energy usage awareness programs and green marketing.
4. Improving Biosensors Technology for detection of pollution, contaminant matter and particulate residue.
5. "Intelligent" Green Building: A discussion on cost, effectiveness and future potential.

Electronics and Electrical

- a. Clean Battery and Cell Technology: Emerging trends in battery and cell technology with special emphasis on usage of nonhazardous materials.
- b. E waste Disposal in India: A discussion on how to reduce and reuse E-waste.
- c. Effective use of piezoelectric substances: Piezoelectric substances have great potential for powering simple day-to-day home use appliances.
- d. LED bulbs: The comparison, the benefit, and the future of lighting.

Automobile

1. Hydrogen Fuel Cells: With zero-emissions capability, hydrogen fuel cells are perfectly suited to the environmental performance that will be demanded of a future generation of cars, while also delivering the added advantages of quieter, more efficient technology than the internal combustion engine. A discussion on the details, the benefits, and the Hydrogen Economy



Hybrid Electric Vehicle Technology: A hybrid electric vehicle (HEV) is a hybrid vehicle which combines a conventional propulsion system with a rechargeable energy storage system (RESS) to achieve better fuel economy than a conventional vehicle. A discussion on the details, the benefits, the cost and efficiency of the HEV

2. Emerging technologies in developing more fuel efficient engines.
3. Emerging commercial models in alternately fuelled engines.

FMCG

1. Emerging trends consumer market for eco friendly products.
2. New technology for better packaging of products – without using plastic / other non-biodegradable materials
3. Possibility of removal of Pesticide content in Products

Chemical, Biological and Pharmaceutical sector

1. Biodegradable replacement materials: availability, viability and cost.
2. Identification of 'hot' areas of Green Chemistry and potential problems in areas such as organ catalysis, bio fuel production, biomass dissolution etc.
3. Enzyme Technology: Benefits and Future.

Energy and Petrochemical

1. Emerging trends in environment friendly production, with specific reference to, production techniques, energy efficiency, pollution control etc.
2. A demand and supply study of alternate sources of energy generation in India, with specific attention to hydro, wind and solar energy.
3. Emerging trends in power plant engineering, with specific attention to newer, more efficient boiler and thermal power unit designs.
4. Biodiesel: Usage of weeds like Jatropha to generate Biodiesel to power rural areas. A discussion on effectiveness, cost and future potential.

Ports and Shipping

1. Marine Pollution control, methods, studies and results.
2. Monitoring the effect of marine traffic on nearby ecosystems



Questionnaire

Automobile sector

1. Does your organization hold specific patents in technologies related to eco friendly automobile propulsion? Alternatively has your organization had any breakthroughs in the field of making automobiles more environment friendly, in terms of fuel efficiency, materials, propulsion etc?
 - a. No
 - b. Yes (Specify trade name, if any) _____

If yes, would you be willing to share the core concepts, effectiveness etc of your technology in an academic setting?

- c. Yes
 - d. No

2. Which among the following topics is your preferred area of discussion in the panel discussion? (You may tick more than one)
 - a. Emerging technologies in developing more fuel efficient engines.
 - b. Emerging commercial models in alternately fuelled engines.
 - c. Alternate modes of automobile propulsion, recent developments and concepts.
 - d. Viability of CNG, LPG etc as alternate fuels in terms of demand, supply and sustainability.
 - e. New environment friendly materials in automobile construction.
 - f. Increasing levels of automation in assembly lines to ensure reduction in workplace hazards, a study on recent developments.
 - g. Deploying shop floor emergency and healthcare services for quick responses to industrial accidents.
 - h. Increasing market demand for environment friendly automobiles and components: emerging trends in green marketing.
 - i. Any other (Please specify)

(you may mention one of your organization's successful projects within the fields of eco innovation and industrial safety as study models for the panel discussion)



Chemical and Pharmaceutical sector

1. Does your organization hold specific patents in technologies related to eco friendly chemical or pharmaceutical manufacturing? Alternatively has your organization had any breakthroughs in the field of making chemicals more environment friendly, in terms of production, bio degradability, raw materials etc?

- a. No
- b. Yes (Specify trade name, if any) _____

If yes, would you be willing to share the core concepts, effectiveness etc of your technology in an academic setting?

- c. Yes
 - d. No
2. Which among the following topics is your preferred area of discussion in the panel discussion? (You may tick more than one)
- a. Emerging trends in environment friendly production, with specific reference to raw materials, production techniques, energy efficiency etc.
 - b. Biodegradable replacement materials: availability, viability and cost.
 - c. Deploying factory emergency and healthcare services for quick responses to industrial accidents.
 - d. Health packages for welfare of workforce engaged in hazardous work environments.
 - e. Increasing market demand for environment friendly products: emerging trends in green marketing.
 - f. Any other (Please specify)

(you may mention one of your organization's successful projects within the fields of eco innovation and industrial safety as study models for the panel discussion)



Energy and Petrochemical

1. Does your organization hold specific patents in technologies related to eco friendly processes? Alternatively has your organization had any breakthroughs in the field of making energy or petrochemical production more environment friendly, in terms of fuel efficiency, pollution, etc?
 - a. No
 - b. Yes (Specify trade name, if any) _____

If yes, would you be willing to share the core concepts, effectiveness etc of your technology in an academic setting?

- c. Yes
 - d. No

2. Which among the following topics is your preferred area of discussion in the panel discussion? (You may tick more than one)
 - a. Emerging trends in environment friendly production, with specific reference to, production techniques, energy efficiency, pollution control etc.
 - b. A demand and supply study of alternate sources of energy generation in India, with specific attention to hydro, wind and solar energy.
 - c. Deploying on site emergency and healthcare services for quick responses to industrial accidents.
 - d. Health packages for welfare of workforce engaged in hazardous work environments.
 - e. Emerging trends in energy usage awareness programs and green marketing.
 - f. Emerging trends in power plant engineering, with specific attention to newer, more efficient boiler and thermal power unit designs.
 - g. Any other (Please specify)

(you may mention one of your organization's successful projects within the fields of eco innovation and industrial safety as study models for the panel discussion)



Electrical and Electronics

1. Does your organization hold specific patents in technologies related to eco friendly electronic or electrical appliances design? Alternatively has your organization had any breakthroughs in the field of making electrical or electronic appliances more environment friendly, in terms of materials, power consumption, etc?

- a. No
- b. Yes (Specify trade name, if any) _____

If yes, would you be willing to share the core concepts, effectiveness etc of your technology in an academic setting?

- c. Yes
- d. No

2. Which among the following topics is your preferred area of discussion in the panel discussion? (You may tick more than one)

- a. Emerging trends in environment friendly electronic and electrical appliances production, with specific reference to production techniques, energy efficiency, pollution control, materials etc.
- b. Emerging trends in battery and cell technology with special emphasis on usage of nonhazardous materials.
- c. Deploying on site emergency and healthcare services for quick responses to industrial accidents.
- d. Health packages for welfare of workforce engaged in hazardous work environments.
- e. Emerging trends in energy usage awareness programs and green marketing.
- h. Any other (Please specify)

(you may mention one of your organization's successful projects within the fields of eco innovation and industrial safety as study models for the panel discussion)



FMCG

1. Does your organization hold specific patents in technologies related to eco friendly FMCG production or supply? Alternatively has your organization had any breakthroughs in the field of FMCG and products more environment-friendly, in terms of raw materials, production efficiency, packaging, marketing etc?

- a. No
- b. Yes (Specify trade name, if any) _____

If yes, would you be willing to share the core concepts, effectiveness etc of your technology in an academic setting?

- a. Yes
- b. No

2. Which among the following topics is your preferred area of discussion in the panel discussion? (You may tick more than one)

- a. Emerging trends in environment friendly FMCG and productions production, with specific reference to production techniques, energy efficiency, pollution control, materials, packaging, marketing etc.
- b. Emerging trends consumer market for eco friendly products.
- c. Deploying on site emergency and healthcare services for quick responses to industrial accidents.
- d. Health packages for welfare of workforce engaged in hazardous work environments.
- e. Emerging trends in energy usage awareness programs and green marketing.
- i. Any other (Please specify)

(you may mention one of your organization's successful projects within the fields of eco innovation and industrial safety as study models for the panel discussion)



Ports and Shipping

1. Does your organization hold specific patents in technologies related to ecologically safe shipping/port traffic control/handling practices? Alternatively has your organization had any breakthroughs in the field of making shipping more environment-friendly, in terms of technology, port handling etc?
 - a. No
 - b. Yes (Specify trade name, if any) _____

If yes, would you be willing to share the core concepts, effectiveness etc of your technology in an academic setting?

- a. Yes
 - b. No
2. Which among the following topics is your preferred area of discussion in the panel discussion? (You may tick more than one)

- a. Emerging trends in environment friendly shipping and port transactions, with specific reference to water pollution, marine ecology etc.
- b. Deploying on site emergency and healthcare services for quick responses to industrial accidents.
- c. Health packages for welfare of workforce engaged in hazardous work environments.
- d. Emerging trends in energy usage awareness programs and green marketing.
- e. Any other (Please specify)

(you may mention one of your organization's successful projects within the fields of eco innovation and industrial safety as study models for the panel discussion)



General

1. Has your organization implemented any of the following measures to promote sustainability (with significant success)?
 - a. Office reorganization to eliminate paper consumption
 - b. Campaign to reduce power consumption.
 - c. Campaign to reduce water consumption.
 - d. Campaign to reduce plastic and other non biodegradable material usage.
 - e. Any other measures to reduce your organizations carbon footprint (specify)

2. Has your organization taken any measures to improve workplace safety and welfare?
 - a. No
 - b. Yes (Specify)



Registration Form

Name of Company : _____

Contact number : _____

Website : _____

Postal Address : _____

Total Number of Participants* : _____ (Maximum of 5)

Details of Participants :

1. Name _____

Designation _____

Contact Number _____

E-Mail Address _____

2. Name _____

Designation _____

Contact Number _____

E-Mail Address _____

3. Name _____

Designation _____

Contact Number _____

E-Mail Address _____

4. Name _____

Designation _____

Contact Number _____

E-Mail Address _____

5. Name _____

Designation _____

Contact Number _____

E-Mail Address _____



Which Sectors apply to your Company ?

1. Automobile
2. Chemical & Pharmaceutical
3. Electrical & Electronics
4. Energy and Petrochemical
5. FMCG
6. Others (Please Specify) _____

Do you want to book a Corporate Stall* : Yes [] / No []

Answers to Questionnaire:

(Please fill the above details and courier it along with the Demand Draft as mentioned on the invitation letter. Kindly notify the organizers by Feb 2, 2009 by phone as well for security purposes).

* Kindly Attach a DD of INR 7,000 per corporate participant and also a DD of INR 25,000 (With specifications as on the Invitation letter) Registration is on a *first-come; first-served* basis. Assistance will be provided for acquiring accommodation and travel facility; however the expenses will have to be borne by the delegates.



Contact Us

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