ARCHI NEWS

ARCHI MEDES (I) CONSULTANTS PVT. LTD. | Sunday 4th May 2014 | archimedesindia.com | Pages 8

FROM THE MD'S DESK

Design of Culturally & Spiritually Sensitive Healing Environments

Often with the rush to provide the most flexible and adaptable environments in healthcare design, we as designers neglect the notion that one size does not always fit all.

If one of our goals as designers is to create a comfortable, patient-centered environment, then sensitivity, awareness, and understanding of the cultures for which we design is imperative.

The Joint Commission is explicit, "Healthcare professionals are entrusted to care for patients as whole persons—body, mind, and spirit. The healthcare approach is interdisciplinary and encompassing. It is important then, for that approach to be culturally and spiritually sensitive."

Some principles that can be applied to help enhance the cultural sensitivity of healthcare spaces include:

Understand Traditional Therapy Models Traditional therapy models frequently require spaces of specific size and shape, often needing either access to the outdoors or a particular cardinal orientation. Traditional healing models can involve group prayer or meditation. This may or may not occur in the place of treatment, exam room, or patient room.

Be Aware of Building and Room Orientation In Feng Shui, a balance of mass and void is important, as is the orientation of entrances and exits. In Native American cultures, access to the outdoors for traditional healing is critical. In Abu Dhabi, for example, where family members may wait in outdoor waiting rooms for days at a time, adequate preparations for cooking may be necessary, including facing these spaces towards the prevailing winds.

Spatial Cues In some societies, such as in China, spatial arrangements greatly affect interpersonal interaction and need to be carefully designed for the space's unique purpose. Additionally, many cultures require multiple family members to be present, even in the exam rooms. The person making healthcare decisions may not be the patient, but a father or older brother. In the Middle East, the separation of male and female patients is critical, and some Muslim patients in the U.S. may require a provider of the same sex.

These concepts of cultural sensitivity marry well with the Planetree concept in providing more personal and humane treatment in healthcare. An awareness of the symbolic messages communicated by building design and the facilitation of cultural sensitivity is an essential part of planning. In concert with staff awareness, the specific design of spaces further enhances the outcome of treatment plans and aid in acceptance of Western Cultures.

Understanding the above will enable Archi Medes to be become "World Player" in Health Care Architecture.

SasidharCherukuri

Archi Medes Philosophy

ARCHIMEDES HEALTHCARE ARCHITECTURE

During the last one and a half decade, the healthcare industry in India, as well as in the other parts of the world, has witnessed astounding growth which is unprecedented in scale, speed and complexity. Development of new medical technology; new research findings and acquisition of greater understandings of patients' needs and experiences; the rapidly increasing market demand for high quality, sophisticated healthcare services; lightening speed advancements in information technology coupled with the softening of national and international boundaries with respect to knowledge transfers; new findings, experiences and innovations in healthcare facilities operations and management methodologies; the opening up and steady growth of the healthcare insurance sector ..... all these developments have fuelled the rapid growth of this industry.

It is against this backdrop of mind-boggling and exciting advancements in medical technology and healthcare delivery methodologies that we at Archimedes commit to provide quality healthcare facilities planning and design consultancy services comparable to the best in the industry anywhere in the world. We acknowledge and address the complexities of financial planning, functional space programming, medical architecture and the myriad issues pertaining to operations & management of any healthcare facility. It is our endeavour to address the entire spectrum of these issues through a well integrated and well-informed approach. The physical environment of any facility has a profound psychological impact on the users. It is with this awareness that we at Archimedes lay special emphasis on designing interior and exterior spaces that elevate the human spirit. Carefully crafted spatial volumes, building forms, pleasing colors and textures that soothes the senses are what we strive to achieve in our projects.

IN THIS ISSUE

How to make a Construction site safe-

Bhargav S. Prajapati

1. Perform a thorough walk through of the site.
- Identify and assess any workplace hazards and write down anything that may be considered unsafe.
2. Train all personnel in work- site safety and operating procedure either on- site or at a training facility.
3. Identify and mark any hazardous materials.
- Identify and assess any workplace hazards and write down anything that may be considered unsafe.
4. Inspect equipment to be sure it is working properly.
5. Use harnesses and other safety equipment when performing work above 2 meters height.
6. Provided personal protective equipment to all employees, including hard hats, safety goggles and shoes, work gloves, ear plugs. (or another form of protection) and face masks.
7. Be sure osha (Occupational safety and health administration) standards are met.
8. Prepare for emergencies.
- Operators and site workers shouldknow what to do in case of electrical, mechanical, power failures, or injuries.
9. Protect public by barricading the construction site during work hours.
- After working hours, lock all points of entry.

Emotional Architecture - Satish

Much has been written about the way architecture affects people's emotions. But what if we look at it the other way? What about the way our emotions affect our designs?

On countless occasions we have heard (or said) the phrase "creative block." How many of those times has it actually been associated with an "emotional block?"

It takes a lot of courage to open our hearts and express to the world how we feel at any given time, especially if the emotions that invade us, at that particular time, are negative. Some, those who dare, express themselves by crying, screaming, laughing, and talking. But there are those too, who display emotion through creative expression (sometimes even unconsciously).

This theory has been discussed countless times from the point of view of art. And being how architecture is an artistic profession, creativity one of, if not the most important ingredient, it is logical to think that it too could be affected by our emotions. It is even possible, if we analyze architectural movements in history, that we would find clues suggesting that these movements were caused by the various situations (emotion-provoking) happening at the given time.

What could an architect who feels relaxed create?

or sad.....

or colourful.....

or one who feels like dancing.....

Rrefractory Bricks - Ram Avatar Singh

Fused Cast AZS are the most widely used materials both in glass contact and superstructure of glass melting furnaces.

The products have passed the ISO international certified, are made of high pure material, fired at high temperature by advanced technology, with the advantages of high strength, high compression resistance, good thermal shock resistance, good performance in high temperature,

good thermal conductivity, good erosion resistance and so on. Widely be used for linings of furnace in industries.

Application: mainly used for working ends, feeder channel, side walls, superstructures, crowns, sidewalls, tank bottoms, C-shaped brick and doghouse crown.etc.

And used for side walls of flame furnaces with embedded melter bottoms, for total security with average pulls and campaign lengths, and superstructures, front wall, back wall, top crown in glass melting furnace.

In January 2014, AICPL entered into an agreement with a prestigious well known medical Institution, having reputation nationally and internationally, for its expansion. This institution is also one of the top ranked medical colleges in India. This medical institution has a present strength of 2700 beds and conducting more than 110 courses including MBBS, Nursing, Allied Health Sciences, many postgraduate medical specialties, distance learning courses and PhD programmes. This institute is the one starting the first college of nursing in India and also performing the first successful Open Heart Surgery in India. AICPL scope of services involves preparation of a Master Plan for a hospital along with teaching and research facilities starting with 1500 Beds as Phase – I of the project and could be scaled upto 6000 Beds along with required ancillary facilities. The approximate area to be designed will be 10,00,000 Sq.Ft. AICPL secured this project competing against a number of other Architectural Consultancy firms.

ARCHIMEDES HEALTHCARE ARCHITECTURE

We are also in advanced stage of finalization of agreement for providing Architectural Design services for a 200 Bed Multi Specialty hospital in a Western African Country. We had in past provided services to this Client and they have again approached AICPL for designing their new hospital project.

MILE STONES

Latest project we have signed agreement is another renowned healthcare service provider in Eastern India. AICPL is providing services for preparation of Master Plan and restructuring of adjoining two existing hospital complexes having approx 4,00,000 Sq.ft of area.

In March 2014, we have entered into agreement with another renowned Private University for a number of healthcare projects. This university based in Gujarat has grown within a very short span of time to give education in the field of Medical and Paramedics and currently undertaking a massive development of their existing facilities and infrastructure. AICPL has signed different agreements with this University for preparation of Master Plan for the existing University campus and designing 300 bed Super Specialty Hospital along with other facilities at one location and a Medical College with 150 admissions and 700 Bed Teaching hospital in another location.

Year 2013-14 has also witnessed an impressive improvement of AICPL presence in overseas projects especially in Middle East. We have been providing services to number of hospital projects in Middle East. Currently two specialized hospital projects are under progress. One hospital is 200 Bed and another is 140 Bed.

Learning From Spiders & Termites How To Create Strong But Light Structures & Sustainable Buildings

- Shivani Shah

When the spiders build their webs they use the geometry which is strong enough to break and still they create their webs light in weight . So the cable net structures and tensile structures are imitated from spiders web so although light in weight they are strong enough to stand stable in strong winds and rains.

When the Eastgate building in Zimbabwe was created where the temperature outside can vary from 3 °C up to 43 °C the air condition plays a significant role. To obtain this goal, Mick Pearce the architect, looked at termites and how they are able to keep the temperature in their nest within one degree. His solution was to have specially designed hooded windows, variable thickness walls and light colored paints as a part of a passive-cooling structure to reduce heat absorption. By doing so Eastegate uses 90% less energy for ventilation than conventional building of its size.

Light, God's eldest daughter, is a principal beauty in a building

What Is Post Tensile Slab - Heema Gajjar

Even though concrete is a very rigid material, it has a natural weakness when it comes to tension. It is limited with respect to the length of a beam, floor, or bridge that can be made out of it. One way to be able to build these structures with longer spans than would be possible with ordinary concrete is through a technique called pre-stressing. A post-tension slab is a slab of concrete that has been pre-stressed using a specific method to increase the strength of the concrete.

methods exist for pre-stressing concrete, with post-tensioning being a very common one. Before a post-tension slab is poured, high-strength steel strands or cables, called tendons, are laid in a tight grid. These help support and give strength to the slab once it has cured. The tendons are sheathed in plastic so that they do not directly touch the concrete. After the grid is made, the concrete is poured, with extra care taken to make sure that the tendons remain at the correct depth. concrete is allowed to cure to about 75% of the way, at which point post-tensioning occurs. Each of the tendons in the post-tension slab is pulled tight, using a hydraulic jack. The tensing of the cables occurs after the concrete has mostly cured, hence the term "post-tension." The tendons are usually pulled to a tension of 25,000 pounds per square inch (4503 kg per square cm). Once the cables have reached the designated tension, they are anchored in the concrete, and the slab is allowed to fully cure. Many modern homes are built on a post-tension slab, which serves as an excellent foundation. This method of pre-stressing concrete is especially useful in areas where the soil expands and contracts relative to weather conditions. Apart from residential applications, post-tension concrete opens up the possibility of many construction techniques that otherwise would be impossible. For example, parking garages and stadiums are stronger and cheaper to construct with post-tension concrete.

Using a post-tension slab rather than ordinary concrete often makes good economic sense. Because there is a smaller depth of concrete used to obtain the same end result, construction costs are reduced. This particular advantage has even larger implications for the construction of skyscrapers and office buildings. When the floor thickness is reduced, so is the weight of the structure. A lighter building means that the cost of building the foundation is reduced. Thinner floors also translate into reduced building height, which means that exterior finishing costs, such as window glass, are lessened.

Frozen Music - Sathish

Many people have heard or said Architecture is "frozen music". So what is this frozen music concept.....?
I've been reading few books related to fractals when I realized it actually explains the built space and Architecture. When can one say a building is quite poetic, or can say it is musical.....????
Answer to that question is quite simple..... When any architecture moves or touches a person at emotional or spiritual level. When Architecture connects it-self to the human then Architecture can be said musical, poetic.
I have listened many professionals say Architecture has to be functional, aesthetic, technically sound etc. But it has to a space which should connect itself to the user, more than anything else.
How can a space be musical or poetic:
Start with a Space, how can it connect itself to user, how light and air are part of construction? Light should be considered as a building material rather than an element or necessity. Try to include elements which can enhance user experience of space. This can be achieved through thorough interaction with user.

Role of a Good Employee
- Vaishali Mitaliya

Mainly three type of role of a good employee is as below:-

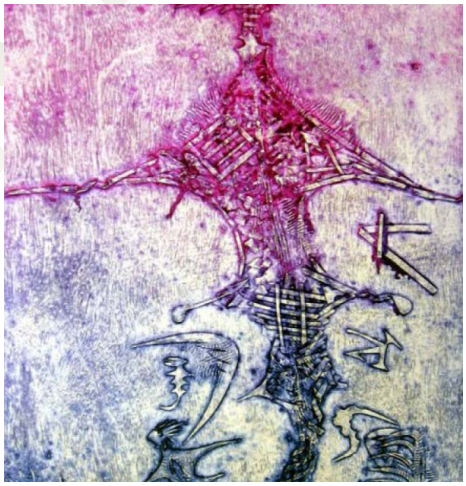
1. Interpersonal
2. Informational
3. Figurehead

1. Interpersonal - is a good quality of an employee, does his work very precisely and move forward. A good employee collects data, work on it and then after this data is transferred to other employee.
2. Informational - the data is collected and informed to all related employees and get them informed on the data and objects.
3. Figurehead - a role of good employee is to be an entrepreneur and a decision maker.

In a company (office) a good employee should fond of some characteristics given below :-

1. Division of work
• The first point is division of work in different employee on his ability and knowledge.
2. Neighborhood
• A neighborhood connection of every employee should be very strong and have a good relation between them.
3. Scalar chain
• A big scalar chain of employee to get good ideas and discussion after good decision and new ideas are taken to accomplish the object.
4. Authority and responsibility
• The total authority is taken by the employee and also the employee should responsible on the object and his work.
5. Decision making
• A good employee have ability to make a decisions on his work or objects.
6. Spirit de crops
• Spirit de crops means a union of employee in work who works very fast on projects precisely accomplish the objectives.

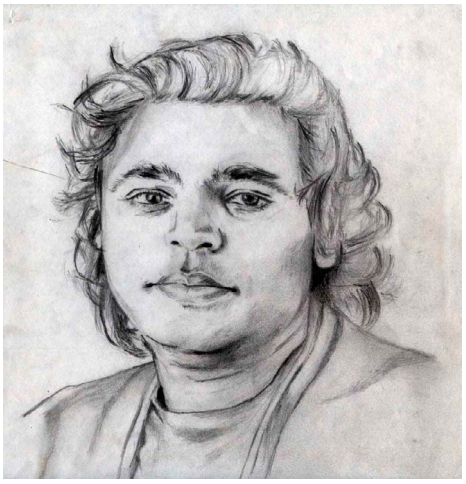
Callography - Sanjay Sarvaiya



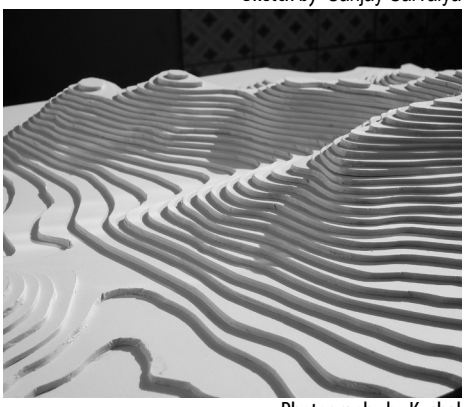
Collagraphy (sometimes spelled collography) is a printmaking process in which materials are applied to a rigid substrate (such as paperboard or wood). The word is derived from the Greek word koll or kolla, meaning glue and graph, meaning the activity of drawing.

The plate can be intaglio-inked, inked with a roller or paintbrush, or some combination thereof. Ink or pigment is applied to the resulting collage, and the board is used to print onto paper or another material using either a printing press or various hand tools. The resulting print is termed a collagraph. Substances such as carborundum, acrylic texture mediums, sandpapers, bubble wrap, string, cut card, leaves and grass can all be used in creating the collagraph plate. In some instances, leaves can be used as a source of pigment by rubbing them onto the surface of the plate.

Different tonal effects and vibrant colours can be achieved with the technique due to the depth of relief and differential inking that results from the collagraph plate's highly textured surface. Collagraphy is a very open printmaking method. Ink may be applied to the upper surfaces of the plate with a brayer for a relief print, or ink may be applied to the entire board and then removed from the upper surfaces but remain in the spaces between objects, resulting in an intaglio print. A combination of both intaglio and relief methods may also be employed. A printing press may or may not be used.



- Sketch by Sanjay Sarvaiya



- Photography by Kushal

Benefits of Sports - Mustafa A Khadim

Physical exercise is good for mind, body, and spirit. Furthermore, team sports are good for learning accountability, dedication, and leadership; among many other traits. Putting it all together by playing a sport is a winning combination.

Many athletes do better academically.

Playing a sport requires a lot of time and energy. Some may think this would distract People from performing their work. However, the opposite is true. Sports require memorization, repetition, and learning, skill-sets that are directly relevant to class work. Also, the determination and goal-setting skills sports require can be transferred to the work area.

Sports teach team-work and help achieve goals.

Fighting for a common goal with a host of other players, coaches, managers, and community members teaches you how to build a collective team synergy and effectively communicate the best way to solve problems en route to a victory. This will be very helpful in life when encountering problems in the work force, at the home-front, or in any arena.

Sports offer many health benefits, some less obvious.

Clearly, sports will improve your fitness and weight goals. However, they also encourage healthy decisions such as not smoking or drinking and offer hidden health benefits such as a lower chance of getting osteoporosis or breast cancer later in life. Also, for some the team counting on you to show up and work hard is plenty of motivation for you to get to the gym day in and day out.

Sports boost self-esteem.

Watching your hard work pay off and achieving your dreams brings about tons of self-confidence. If you can achieve something in a sport or with a fitness goal, then you know you can achieve any other goal you set. This is a very rewarding and exiting process.

Playing a sport cuts down on pressure and stress.

Exercising is a natural way to loosen up and let go of stress. Also, you will most likely make many new friends on the team who can be there for you as a support system. When you find you are having a lot of stress, you can call up team mates and head to the gym to talk it out and play it out.

For all of these reasons, it is always a great decision to get involved in the sports arena.

Being an architect isn't only about construction, it's about creating wide spaces with small spaces

Kareng Ghar & Talatal Ghar

- Trisha K. Sarmah

Location: Rangpur, east of Sibsagar town
Built By: Ahom King Rudra Singha
Highlights: Largest monument made by the Ahom Kings History has it that Rangpur, one of the former capitals of the Ahom Kingdom, was founded by the Ahom ruler of the 17th century Swargeo Rudra Singha. He then constructed a palace in the city, from wood and such other locally available materials. Later, his successor Rajeswara Singha added some more stories to the palace, making it a seven-storied edifice. The upper four stories are known as Kareng Ghar, while the three underground floors are collectively called Talatal Ghar. Even today, the seven storied palace stands proud and tall in the Sibsagar district of Assam.
The palace was initially built for the purpose of serving as a military base for the Ahom kings. Apart from Kareng Ghar and Talatal Ghar, it has two underground tunnels as well, connecting Talatal Ghar and the Gargaon Palace with the Dikhow River. It was used as an emergency exit during wars. This section was later blocked by the East India Company. The entire palace, with its various rooms, is interconnected by tiny passages. Built within the palace are an octagonal-shaped temple, three large chambers, a guard room and a hall with a huge courtyard having separate entrances.
In present times, tourists and visitors can only view the ground floor and certain sections of the upper floors. The underground stories have been completely sealed off. However, during recent excavations, remains of burnt wooden logs, post holes, brick structures and pathways on the northern and western sides of the palace were found at the palace, indicating the use of these structures in the construction of the original building. Besides this, there was also an earthen fort and a brick fortification surrounding the palace, excavated later on.
Bartops (guns) have been found to be preserved in the Talatal Ghar of the palace. In fact, there was a whole storehouse of gunpowder and ammunition (Khar Ghar) situated in a corner of the palace. This ancient palace of the 17th century, today, serves as a great attraction among tourists and researchers from every corner of the world, mainly for its magnificent architectural structure and patterns. Indeed, a visit to this palace is a must if you want to know more about the rich cultural heritage of Assam.

Papaya-a home remedy for Dengue - Naresh Fulan

Despite a rich culture of alternative medications including ayurveda and variety of homemade remedies, most of us reach out for antibiotics when ill. In fact, even diseases like dengue can be cured with alternative medicines.

"Dengue fever runs a serious course with destruction of platelets which could result in fatality." Even after taking different medications some time it does not cures this disease.

However, the leaves of Papaya can cure the dengue by improvising the platelets counts. In various countries like Malaysia, Thailand, Sri Lanka etc. they practices this home remedies to rescues the dengue patient.

PAPAYA LEAF JUICE

Take a medium sized papaya leaf and crush it in the blender. Add one table spoon of water. Blend it well, strain and store. Take one or two teaspoons of the juice at least three times a day, till your platelet count is normal.

- Dr. Haren Joshi (A Vascular Surgeon with 34 years of experience in US)

(Reference - Based on the article from -Ahmedabad Mirror)

Facts about Ahmedabad

- Mukesh Chaudhary

Ahmedabad city is well known for its diversified culture. The cultural heritage of Ahmedabad is very rich.

ARCHITECTURE :- Ahmedabad has Indo-Saracenic style of architecture - a mix of Hindu and Islamic architectural styles.
Ahmedabad, known for its intricately carved wooden architecture and the neighbourhood settlements of pols.
HANDICRAFTS :- The city developed a booming textile industry, which earned it the nickname "the Manchester of the East".

If you think you can't make the world a better place with your work, at least make sure you don't make it worse - Herman Hertzberge

It is a city of entrepreneurs and its traditional artisans are struggling to find a foothold with the quickly changing aspirations of the public.
KALAMKARI - Matani pachhedi is dedicated to goddess Amba or Durga. Drawing depicting stories from mythology related to Goddess Amba, is made on cotton fabric.
ROGHAN PRINTING - This mughal art of printing papers/cloth with the help of a special paint called Roghan .
APPLIQUE WORK - Its basically cloth wear design where a piece of cloth is stitched on the other makinga design .

- Sketch by Riddhi

Architecture, of all the arts, is the one which acts most slowly, but most surely, on the soul

Scientists Working on Multicolored Solar Cells for Facade Design - Rajshree Paniker

Füchsel is currently working with his "efficient design" team on the fundamentals of how to make colored solar cells from paper-thin silicon wafers. These will be particularly suited to designs for decorative façades and domestic roofs. The silicon semiconductor material, just a few micrometers thick, absorbs light and turns it into electricity. To enable lots of light to reach the silicon substrate, the semiconductor layer is given an optically neutral protective barrier (insulator), onto which a hundred-nanometer-thick oxide layer is applied. This transparent conductive oxide (TCO) conducts electricity, and is there primarily to guide as many light particles as possible to the semiconductor layer below. "TCO has a lower refractive index than silicon, so it works as an anti-reflective coating," Füchsel says.

The simple construction of this SIS (semiconductor-insulator-semiconductor) solar cell, with its transparent outer layer, has a further advantage: Not only does it capture more light, it means solar panels can be made in different colors and shapes. "The color comes from changing the physical thickness of the transparent conductive oxide layer, or modifying its refractive index," Füchsel says. The Jena-based researchers have thus managed to combine wafer-based silicon with processes borrowed from thin-film photovoltaics. They are also pioneering the use of innovative coating materials. Indium tin oxide is the most common material used today, but it is expensive. The IOF laboratory is working on how to use cheaper zinc oxide with added aluminum. New opportunities in façade design are being opened up not just by SIS solar cells, however, but also by dye solar modules and flexible organic solar cells.

Covering a roof or a facade with standard solar cells to generate electricity will change a building's original appearance—and not always for the better (this idea to coat buildings with graphene kicks the problem up another notch). At present only dark solar panels are widely available on the market. "Not enough work has been done so far on combining photovoltaics and design elements to really do the term 'customized photovoltaics' justice," says Kevin Füchsel, project manager at the Fraunhofer Institute for Applied Optics and Precision Engineering IOF in Jena.

But things are changing. The IOF physicist has been focusing for the last four years on nanostructured solar cells suitable for mass production as part of a junior research group funded by Germany's Federal Ministry for Education and Research (BMBF). Together with a Fraunhofer team and scientists from the Friedrich-Schiller University in Jena, the group of optics specialists is looking for cost-effective techniques and manufacturing processes to increase both the efficiency of solar panels and the design flexibility they give architects and designers.

But how does color affect the efficiency of these new SIS modules? "Giving solar cells color doesn't really affect their efficiency. The additional transparent TCO layer has barely any impact on the current yield," Füchsel says. Simulations showed that SIS cells could be up to 20 percent efficient. In practice, the efficiency depends on the design of the solar panels and the direction the building faces. But not every color allows you to generate the same amount of electricity. There are restrictions for example with certain blends of red, blue and green.

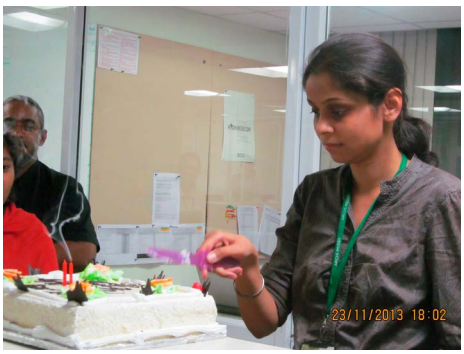
To connect several solar cells to create a single module the IOF scientist will use laser-based optical welding processes. They enable accurate work at a micrometer scale and do not damage the surrounding material. Researchers are also developing an inkjet printing process to contact the conductive TCO later on the silicon wafer. This will make manufacturing faster and allow additional degrees of flexibility in design. SIS solar cells could even be used to make large billboards that produce their own electricity. Patents already cover the production of colored cells, as well as the ability to integrate design elements into solar panels and whole modules. "This opens up numerous possibilities to use a building to communicate information, displaying the name of a company or even artistic pictures," Füchsel says.

Six reasons why we should talk the truth - Anusha

- **Trust** - In order to be successful in anything, a person must have a reputation of honesty.
- **Good Health -** People who tell the truth are healthier. They have less concern, less stress and feel better about themselves.
- **Peace of Mind -** It's impossible to worry and be happy at the same time.
- **Good Sleep -** If you lie—unless you have no conscience at all—you'll often lose sleep because of your fears of being found out.
- **Confidence -** There's no way to have real confidence in oneself when you're walking on "bull."
- **Good Relationships -** The more one trusts the better the relationship he or she is in, whether personal or

Birthday Celebrations

- Kavitha - Nov 6



-Nidhi - Nov 22

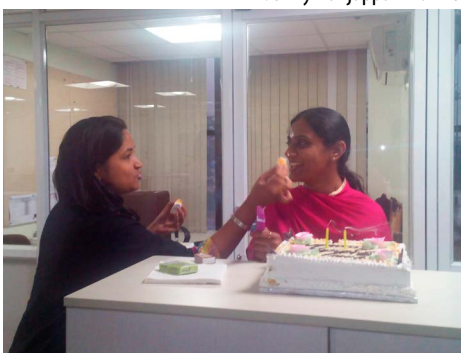
- Kiran - Dec 16

- Somasundar - Dec 25

- Sunny Nanjappa - Nov 16

- Pranitha Rani - Feb 5

- Sridhar - April 26



- Anusha - Nov 29

- Trisha Sarmah - Dec 4

- Ram Avatar Singh - Dec 12

- Kumar Gyaneshwar - March 1

- Binu Sarath - December 30

- Heema Gajjar- January 13

- Mukesh Chaudhary - Feb 1

- Ritu Rajput - March 7

Architecture should speak of its time and place, but yearn for timelessness