The Civil Engineer

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OUR INTELLECTURAL PILLARS

The Institution of Civil Engineers (India)

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Chairman of the Institution
Er. S. L. Swamy

Civil Engineer-News Letter contains the news of Institution of Civil Engineers (India) unless it is stated that an article or a letter does not represent the ICE(I)'s views.

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Editorial Board

In This Issue...

The Institution of Civil Engineers (India)

From the Editor-in-Chief's Desk

There are two most sought after Professions in the society- Engineering and Medical. These are broad terms which have been used from the inception of these two disciplines. As the time passed these disciplines were split into many sub-disciplines and even sub-disciplines were further fragmented. In this issue of The Civil Engineer you will find an article which gives details about the Civil Engineering a multidimensional discipline with glimpse of the important areas of Civil Engineering like Construction Engg., Structure Engg., Geo Tech. Engg., and Transport Engg. etc. Another article on Engineering shows the Engineering marvel. This relates to the Bandra-Worli sea link in Mumbai which was inaugurated on 30th June 2009. It has exhibited India's Engineering marvel which shows that Indian Construction players have come of age and are capable of matching their counterparts. This issue also contains an article on noise pollution. Noise pollution affects nearly every aspect of our life and has probably has damaging effects as well. The last article is regarding recycled aggregate concrete for sustainable development. In today's era it is of utmost importance that the construction processes should involve all the aspects of conservation of natural resources and should be eco-friendly.

Articles on Civil Engineering and Architecture Engineering related to the Diploma and Degree programme of ICE(I) are invited for publication in this Newsletter. Corporate and Non-Corporate Members of ICE(I) are welcome to send their contribution to enrich The Civil Engineer, Newsletter from strength to strength.

Er. S.L. Swamy
Chairman, ICE(I)

You have to enable and empower people to make decisions independent of you. We must know that each person in a team is an extension of our leadership; if they feel empowered they magnify our power to lead. Trust is a great force multiplier.

From the Editor's Pen

Movement is life. Life without movement is like a corpse. If we look around, we find seconds turn to minutes and minutes to hours, hours to days, weeks months and years and so on. Similarly seasons move on giving space to other seasons and this movement also goes on. Same is the case with life-from childhood to youth to old age and so on. Every stage of life has charm of its own. There is no denying the fact that everybody does not tread the same path in the society. This depends on the family in which one is born. To the one born in well to do family the struggle is comparatively low as compared to the one who has to make his life and have better status in Society which we call a self made man. Life is a continuous struggle; there is no final stage of fulfillment or perfection. That probably is the stage where God dwells. But we have to move on from one stage to another.

Some run for opportunities, grab them and achieve whatever they want. Others wait for the opportunities to knock their door. They miss the opportunity they repent and surely they cannot progress. One has to look for the opportunity, take advantage of it and move further to rise in life. One can make or mar one's career. Nobody can help or can come to one's rescue forever. One has to find the strength from within and this self confidence and willpower takes one to any height which one may not have even imagined. So let us be positive, move forward and achieve goal with confidence and pride. Let us live a life which moves and looks to bright future for a satisfying life which may be envy of others.

Prithipal Singh
Secretary, ICE(I)

Success is measured by what we have done to prepare for competition. Therefore, every time you compete, try harder to improve on your last performance. Give nothing short of your very best effort.

Civil Engineering- A Multidimensional Discipline

Civil engineering is a broad field of engineering dealing with the design, construction, and maintenance of fixed structures, including roads, buildings, airports, tunnels, dams, bridges, and water supply and sewage systems. Civil engineering is the broadest of the engineering fields, partly because it is the oldest of all engineering fields. Civil engineering today is comprised of many related specialties, which overlap and shade into each other like: (i) General Civil Engineering (ii) Construction Engineering (iii) Structural Engineering (iv) Geotechnical Engineering (v) Transportation Engineering. (vi) Water Resources Engineering (vii) Hydraulic Engineering and Hydrology ((viii) Environmental Engineering besides (ix) Surveying (x) Fire Protection Engineering (xi) Materials Science etc.

We shall have a glimpse of the important areas of Civil Engineering.

(i) General Civil Engineering

General civil engineering is concerned with the overall interface of human created fixed projects with the greater world. General civil engineers work closely with surveyors and specialized civil engineers to fit and serve fixed projects within their given site, community and terrain by designing grading, drainage, pavement, water supply, sewer service, electric and communications supply and land (real property) divisions. General civil engineers visit project sites, review the work of specialists, and prepare construction plans. General Civil Engineering is also referred to as Site/Civil Engineering; a branch of Civil Engineering that primarily focuses on converting a tract of land from usage to another. Site/Civil Engineers typically apply the principles of Geotechnical Engineering, Structural Engineering, Environmental Engineering, Transportation Engineering and Hydraulic Engineering/Hydrology to residential, commercial, industrial and public works projects of all sizes and levels of construction.

(ii) Construction Engineering

Construction engineering involves planning and execution of the designs from transportation, site development, hydraulic, environmental, structural and geotechnical engineers with the help of Construction Machinery. As construction firms tend to

have higher business risk than other types of civil engineering firms, many construction engineers tend to take on a role that is more business-like in nature: drafting and reviewing contracts, evaluating logistical operations, and closely-monitoring prices of necessary supplies.

(iii)Structural Engineering

Structural engineering is concerned with the structural design and structural analysis of buildings, bridges, and other structures. This involves calculating the stresses and forces that act upon or arise within a structure, and designing the structure to successfully resist those forces and stresses. Resistance to wind and seismic loadings, especially performance near resonant frequencies, which affect the overall stability of a structure are major design concerns. Other factors such as durability and cost are also considered. In addition to design of new buildings, structural engineers may design a seismic retrofit for an existing structure to mitigate undesirable performance during earthquakes.

(iv) Geotechnical engineering

Geotechnical engineering is primarily concerned with the interaction of structures with earth materials, and structures constructed from earth materials. Geotechnical engineers analyse site conditions and design foundations and earthworks. Geotechnical engineers deal with soil properties, soil mechanics, compression and swelling of soils, seepage, slopes, embankments, retaining walls, ground and rock anchors, use of synthetic tensile materials in soil structures, soil-structure interaction, and soil dynamics.

(v) Transportation engineering

Transportation engineering is concerned with moving people and goods efficiently, safely, and in a manner conducive to a vibrant community. This involves specifying, designing, constructing, and maintaining transportation infrastructure which includes streets, highways, rail systems, airports, ports, and mass transit. It includes areas such as transportation design, transportation planning, traffic engineering, urban engineering, queueing theory, pavement engineering, Intelligent Transportation System (ITS), and infrastructure management.

(vi) Water Resources Engineering

Water resources engineering is concerned with the collection and management of water (as a natural resource).

As a discipline it therefore combines hydrology, environmental science, meteorology, geology, conservation, and resource management. This area of civil engineering relates to the prediction and management of both the quality and the quantity of water in both underground (aquifers) and above ground (lakes, rivers, and streams) resources. Water resource engineers analyze and model very small to very large areas of the earth to predict the amount and content of water as it flows into, through, or out of a facility. Although the actual design of the facility may be left to other engineers.

(vii) Hydraulic engineering and Hydrology

Hydraulic engineering is concerned with the flow and conveyance of fluids, principally water. This area of civil engineering is intimately related to the design of pipelines, water distribution systems, drainage facilities (including bridges, dams, channels, culverts, levees, storm sewers), and canals. Hydraulic engineers design these facilities using the concepts of fluid pressure, fluid statics, fluid dynamics, and hydraulics, among others.

Hydrology is the study of natural water flows, including streams and lakes, and rainfall. Hydrologic studies are often performed by hydraulic engineers or general civil engineers to properly design site improvements for drainage and to prevent flooding.

(viii) Environmental Engineering

Environmental engineering deals with the treatment of chemical, biological, and/or thermal waste, the purification of water and air, and the remediation of contaminated sites, due to prior waste disposal or accidental contamination. Among the topics covered by environmental engineering are pollutant transport, water purification, sewage treatment, and hazardous waste management. Environmental engineers can be involved with pollution reduction, green engineering, and industrial ecology. Environmental engineering also deals with the gathering of information on the environmental consequences of proposed actions and the assessment of effects of proposed actions for the purpose of assisting society and policy makers in the decision making process.

Environmental engineering is the contemporary term for sanitary engineering, though sanitary engineering traditionally had not included much of the hazardous waste management and environmental remediation work covered by the term environmental engineering. Some other terms in use are public health engineering and environmental health engineering.

The practice of Civil Engineering is regulated by one holding appropriate qualification which usually include a degree, as the Engineer is responsible in-charge of a project. Therefore he should be fully qualified, apart from this, his work experience is equally important, Therefore, to be a successful Engineer both educational competencies and professional experiences competencies are very much necessary.

(Dr. S.D. Sharma)
Director (Academic)
ICE(I)

Take two workers in an organization. *One limits his giving by wages he is paid. He insists on being paid instantly for what he does.* ***That shows he is a man of limited imagination and intelligence.*** *The other is a natural giver. His philosophy of life compels him to make himself useful. He knows that if he takes care of other people's problems they will be forced to take care of him to protect their own interests. The more a man gives of himself to his work, the more he will get out of it, both in wages and satisfaction.*

Engineering Marvel

The Bandra-Worli sea link in Mumbai was inaugurated on 30th June,2009. This is first sea bridge in India aiming to ease chronic congestion on Mumbai's Traffic Jammed roads. It has exhibited India's engineering marvel which shows that Indian construction players have come of age and are capable of matching their global counter parts. Surely it is showing off India's engineering prowess which can inspire other projects elsewhere. This bridge is the longest in South East Asia and the longest in India's so far. The bridge's builders are the Hindustan Construction Company Ltd.

The Bandra-Worli sea link is a cable-stayed bridge, in which steel cables perform the role of concrete pillars or arches to absorb the enormous tension generated by moving vehicles. The tension escapes via the cables to the foundations. The sea link will cut travel time by one-tenth between Bandra in Western Mumbai and Worli in Central Mumbai.

We can have a glance at the professional marvel of Indian engineers and the infrastructure that has come up as a rare distinction and has added to one of the wonders of Mumbai which will now be referred to along with the Gateway of India and other landmarks which distinguishes Mumbai from other States. Let us have a look at the mammoth task that has been completed:

- 90,000 tone of cement used in the sea link, enough to build five 10-storey buildings.
- The length of the sea link is equal to 63 times the height of the Qutub Minar.
- 50,000 African elephants weighed together will equal the weight of the bridge.
- Length of steel cables used is equivalent to the earth's circumference.
- 1,000 KW is required to illuminate bridge, enough to light up nearly 100 households.
- BEST will run open-deck buses on sea link, so that people have grand view of the bridge.

Other interesting figures to peep into are :-

Rs. 1,640 crore : the cost of construction

Rs. 9 crore : the cost of illumination

10 Years to build the bridge.

Rs. 100 crore estimated savings in vehicle operating costs.

22,535 tonne of steel used

20,000 tonne is the weight of the bridge.

These figures are really astonishing and speak volume of the human brain and the infrastructural abundance that has gone into to raise such a huge structure which was just unimaginable in the past. As a matter of fact this has opened the eyes of others that with determination and planning anything can be achieved with the support of the Government and the best wishes of the people.

Let us have a glance about other features of the bridge.

50 kmph will be the speed limit

8 lanes of traffic

2 lanes dedicated for buses

16-lane toll plaza

Rs. 50 for one-way toll to be charged from car or light motor vehicle drivers.

Rs. 75 toll for mini-buses

Rs. 2,500 is what regular travelers can pay for monthly pass to use sea link.

5% by which toll charges will be increased from June, 2010.

4,000 workers and 15 engineers worked round the clock to build the link.

(Ms. Maya Thakur)
Director (Admn)
ICE(I)

(Courtesy: Mall Today, 30-06-2009)

A gardener who cultivates his own garden, with his own hands, unites in his own person the three different characters, of landlord, farmer, and labourer. His produce, therefore, should pay him the rent of the first, the profit of the second, and the wages of the third.

NOISE POLLUTION

Noise is probably the most frequently forgotten of the environmental pollutants, yet its effects can be many and far-reaching. Millions of people on all continents are exposed to unhealthy levels of noise. Perhaps 150 million US citizens live in areas where the daily average noise levels exceed the US Environmental Protection Agency's safe noise level of an average of 55 decibels. What is a truly safe level of noise is controversial; levels of between 55 and 65 dB have been used for planning purposes in the USA and have been called "acceptable". In Hong Kong over a million people live in even noisier environments.

Sources of Noise Pollution

The sources of noise pollution vary. In some places noise from construction projects predominates, while in others it is vehicular traffic or noise from airports. Other sources include the noise in occupational settings or even the noise of simultaneous conversations. It also seems from a number of studies that intermittent noise is more of a problem than noise of a similar intensity which is constant.

Effects of Noise Pollution

Noise pollution affects nearly every aspect of life and probably has damaging physical effects as well. The best-studied and best-defined effect on physical health is the effect of noise on hearing. The research results are clear: loud or sustained noise can damage hearing. The source of the noise is not very important; it can be a pile driver or rock music. What is important is that it can have a lasting impact.

Noise pollution also impacts people's sleep. It can result in mood problems and adversely affect job performance. (See our section on insomnia for more information on the effects of disturbed sleep and steps to take to improve insomnia.)

Several research studies suggest that noise can cause high blood pressure. Others say that psychiatric diseases can be caused by noise. Some of these studies are controversial and are contested by other researchers because so many variables such as age, overall state of health, diet, smoking and drinking habits, socioeconomic factors, and other sources of environmental and social stress must also be taken into account.

It is clear, however, that noise, even though a "non-specific stressor", does cause a physical

response. It elicits the same responses as a perceived physical threat would produce: it activates the nervous system, causes the muscles to tense and the heart rate and respiratory rate to increase and prepares the body to fight or to run away. This response-called the "fight or flight" response--underlies all responses to stress.

The long-term effects of this kind of stimulus, of being ready to flee or give battle, are not completely understood. Being continuously under stress is something like sitting on the edge of your chair or waiting for the other shoe to drop. Your body isn't quite sure what will happen next or how to respond, and that state constant confusion has been implicated in the development of a number of diseases.

It is also important to remember that people who sense that they have some control over what happens in their lives are impacted less strongly by stressors than those who feel they have no control, and noise is something over which we have very little control. (See our section on stress for more information about these important problems.)

Noise affects us in another significant way: people exposed to noise feel a greater sense of frustration and annoyance than people whose environment is not as noisy. Annoyance is the expression of the negative feelings experienced when one's activities or the enjoyment of one's surroundings are disrupted. Annoyance can have a major impact on the quality of life and is generally a variable examined when studying the impact of noise.

In addition to the other environmental pollutants, noise can affect not only our moods but also our physical well being, and, just like water and air pollution, must be subject to greater study and more stringent controls.

How to lower the pollution

There are some things you can do to help yourself while governments get around to tightening the standards for noise pollution, though:

--You can use air conditioning to allow you to keep windows closed during the noisiest times of the day. This is of course only an interim solution, since air conditioning uses more electricity which raises your energy costs and also requires more power plants which in turn create more air or other forms of pollution. Furthermore, when rooms are closed up indoor air pollution becomes a problem. But it can be a good short-term solution.

--You can buy small noise-canceling devices which sample the frequencies of sound and create other sound waves which in essence collide with the noxious sounds and batter them into other, less disturbing sounds. These devices are relatively new and have not been proven to be fully effective, though.

--You can use other sound-generating devices such as stereo systems, which cover up some of the more disturbing sounds with more pleasurable ones. This a short-term solution, however, since the underlying sounds are still present.

--You can learn some of the techniques described in our section on Stress to lessen the impact unpleasant sounds may have on you. When you are more relaxed in general, big annoyances become little annoyances and may disappear altogether. When you learn to truly relax, you may find that sounds which were once of great concern simply fade away into the background.

--And of course, if none of the other suggestions works, you can become active in your community to work with your local authorities to devise solutions to the problem of noise pollution which may be uniquely suited to you and to the place you live, making life wherever you may be better for everyone.

(Chander Mohan)
Principal Resource Officer
ICE(I)

http://free-default-update-win-mac-free-antivirus-nospam-download.net/shint.htm

The best verse hasn't been rhymed yet, The best house hasn't been planned, The highest peak hasn't been climbed yet, The mightiest rivers aren't spanned; Don't worry and fret, faint-hearted, The chances have just begun for the best jobs haven't been started; the best work hasn't been done.

RECYCLED AGGREGATE CONCRETE FOR SUSTAINABLE DEVELOPMENT

In today's era, it is of utmost importance that the construction processes should involve all aspects of conservation of natural resources and should be eco-friendly. With this, the problem of waste disposal, especially the demolition waste has been a major concern for planners and engineers in the developing countries. With the enormous increase in the quantity of demolition rubble, the continuing shortage of dumping sites, sharp increase in the transportation and disposable cost and, above all the stringent antipollution and environmental regulations enforced in a number of countries, the demolition waste disposal problem is assuming serious and at times even alarming proportions. It is therefore no wonder that the concept of recycling waste material and using it again in some form or the other has gathered momentum. The concept of recycling demolition waste into aggregate has also provided one of the alternative materials to construction engineer who has been in search for newer material and newer technology. Thus, recycling has been gaining wider attention as a viable option for handling of waste concrete.

There are other incentives for the consumer to use recycled aggregate in concrete. These include

1. Cost: The cost of recycled aggregate compares quite favorable with natural aggregate.
2. Municipal Approval: Many municipalities allow to use of recycled aggregate if it meets certain strength and durability criteria.
3. Waste management: With a urge need to reduce and manage waste, the use of recycled aggregate is one of the most effective way to managing waste: and

The research on recycled aggregate concrete (RAC) is continued for last two decades in India. It is expected that the mechanical properties of concrete with recycled aggregates will be different than those made with normal aggregates. Compressive strength values have been reported to be in the range of 0 to 40% lower than those of comparable concretes containing normal aggregates. For concrete made with recycled aggregates, the other properties of interest like tensile strength, flexural strength, shear strength, and modulus of elasticity are also inferior, while creep and shrinkage tend to be higher. The magnitude of the difference for each of the properties depends, among other things, on factors such as the fraction of the total aggregate component that is recycled, the characteristics of the original concrete, the nature and level of contaminants present, the amount of fines, and the quantity of attached mortar. Investigations have been aimed at determining the optimum combination of these factors that will economically produce a recycled aggregate that is suitable for further application.

(G. D. Awchat)
Research Schlor, R.T.M. & Others
Nagpur University, Nagpur

Without ambition one starts nothing without work one finishes nothing. The prize will not be sent to you. You have to win it. The man who knows how will always have a job. The man who also knows why will always be his boss. As to methods there may be a million and then some, but principles are few. The man who grasps principles can successfully select his own methods. The man who tries methods, ignoring principles, is sure to have trouble.

Add to Your Vocabulary

- **Tapered Edge Strip**
  A tapered insulation strip used to elevate the roofing at the perimeter and at penetrations of the roof.

- **Taxiways**
  Pavements used for the powered ground movement of aircraft between runway systems and other airfield facilities.

- **Tensegrity**
  An array of tension cables and compression rods that supports a structure; invented by Buckminster Fuller student Kenneth Snellson.

- **Tensile Strength**
  (1) The maximum tensile stress per unit of original cross sectional area applied during stretching of a specimen to break; units : SI-metric-Megapascal or kilopascal, customary-pound per square inch;
  (2) The longitudinal pulling stress a material can bear without tearing apart;
  (3) The ratio of maximum load to original cross-sectional area. Also called ultimate strength.

- **Ultrasonic Testing**
  Nondestructive testing of a materials? integrity using sound waves.

- **Underpinning**
  A foundation replacement or reinforcement for temporary braced supports.

- **Warren Truss**
  A triangular truss consisting of sloping members between the top and bottom chords and no verticals; members from the letter W

- **Zonolite**
  Used as both an aggregate in the making of insulating concrete and as loose-fill insulation, it's a lightweight insulating material.

- **Vermiculite**
  An aggregate somewhat similar to perlite that is used as an aggregate in lightweight roof decks and deck fills. It is formed from mica, a hydrous silicate with the ability of expending on heating to form lightweight material with insulation equality. Used as bulk insulation and also as aggregate in insulating and acoustical plaster and in insulating concrete.

- **Wagner Fineness**
  The fineness of materials such as Portland cement expressed as total surface area in centimeters per gram as determined by the Wagner turbidimeter apparatus and procedure.

Non-Corporate Members, ICE(I)

Please ensure that your subscription of Rs. 500/- has been paid to ICE(I)

Professional Vistas

- **Recognition by Govt. of India**, Ministry of Human Resource Development, Department of Higher Education vide Gazette Notification No. F.24/1/2007-TS.III Dated 06.11.2007.
- **Recognition by All India Council for Technical Education (AICTE)** vide letter no. Eqvi./AB/Gen.Corr./2008-09 dated 16.9.2008.
- **Recognition by Association of Indian Universities (AIU)** vide letter No. EV/III (366)/2008/71 Dated 11.04.2008.
- **Recognition for GATE** by National Coordinating Board-GATE, Deptt. of Education, MHRD, GoI.
- Recognition by the **Union Public Service Commission (UPSC)** New Delhi Vide letter No. F.2/1/2007-EIB Dated 30.06.2008.
- Recognition by the **RITES Limited** (A Govt. of India Enterprises) Vide letter No. RITES/RI/RCED/ MISC/2008 Date 14.07.2008.
- Recognition by the **Delhi Development Authority (DDA)** vide order No.F.7(98)2008/PBI/ 2299 Dated 20.08.2008.
- Recognition by the **IRCON International Limited** (A Govt. of India Undertaking) vide letter No.IRCON/HRM/31/28/728 Dated 01.09.2008
- Recognition by the **Border Roads**, vide their letter no. 13616/Gen/Rect/DGBR/97/E1A dated 21.10.2008
- Recognition by **Shapoorji Pallonji & Co. Ltd** vide their letter/email dated 30.10.2008

[TO BE PUBLISHED IN PART-1 SECTION -I OF GAZATTE OF INDIA]

Government of India
Ministry of Human Resource Development
Department of Higher Education
* * * * * *

Shastri Bhawan, New Delhi,
the 6th November, 2007

NOTIFICATION

No.F.24 – 1 / 2007 – TS.III. On the recommendations of the High Level Committee for recognition of Educational Qualifications in its meeting held on 22nd May 2007, the Government of India has decided to give recognition to the Section A & B of Associate Membership course, equivalent to Degree and Part – I & II of Technician Engineers (T) equivalent to Diploma in Civil Engineering and Architecture Engineering Courses conducted by the Institution of Civil Engineers (India), Ludhiana (Punjab) as per syllabus approved by All India Council for Technical Education (AICTE) w.e.f. the academic session 2007 – 2008 for the purpose of employment to the posts and services under Central Government in the appropriate field. It is subject to the conditions that the total number of candidates who can be admitted for the said examination would not exceed the authorized strength of the concerned Institutions with which Institution of Civil Engineers (India), Ludhiana (Punjab) has entered into Memorandum of Understanding (MOUs). A review in respect of recognition of educational qualifications shall be made by Ministry of Human Resource Development after one year through All India Council for Technical Education (AICTE).

(RAVI MATHUR)
Joint Secretary to the Government of India
Tel: 2338 1097

To

The Manager,
Government of India Press,
Faridabad.

..contd./-

The Institution of Civil Engineers (India)

Date Sheet for Winter-2009 Examination

Date& Day	Forenoon Session (10.00 AM to 1.00 PM)		Afternoon Session (2.00 PM to 5.00 PM)	
18-Dec-09	TC 2.7	Construction Technology	TC 1.1	Basic Civil Engineering
Friday	TA 2.1	History of Architecture	TA 1.1	Basic Architectural Engineering
	BCO 3.9	Traffic Engineering	TC 2.1	Surveying
	BAO 3.2	Rehabilitation of Structures	TA 2.7	Surveying & Levelling
			AC 1.1	Advanced Engineering Mathematics
			AA 1.1	Advanced Engineering Mathematics
			BC 2.1	Applied Hydraulics & Fluid Machines
			BA 2.1	Professional Practice & Architectural Engg.
19-Dec-09	TC 2.8	Estimation, Costing & Specifications	TC 1.2	Technical Writing
Saturday	TA 2.8	Architectural Design & Graphics	TA 1.2	Technical Writing
	BCO 3.10	Highways and Railways Engineering	TC 2.2	Fluid Mechanics & Machinery
	BAO 3.3	Advanced Architectural Design	TA 2.2	Free Hand Drawing & Painting
	BCO 3.20	Irrigation Engineering	AC 1.2	Advanced Strength of Materials
			AA 1.2	Advanced Strength of Materials
			BC 2.2	Machine Foundations
			BA 2.2	Finishes, Materials & Specifications
21-Dec-09	TC 2.9	Civil Engineering Designs	TC 1.3	Engineering Physics & Applied Mechanics
Monday	TA 2.9	Building Material & Science	TA 1.3	Engineering Physics & Applied Mechanics
	BCO 3.11	Airports, Docks & Harbors	TC 2.3	Soil Mechanics
	BCO 3.21	Ground Water Hydrology	TA 2.3	Building Construction
	BAO 3.4	Interior Design	AC 1.3	Computer Programming and Numerical Methods
			AA 1.3	Computer Programming and Numerical Methods
			BC 2.3	Advanced Reinforced Concrete Design
			BA 2.3	Building Services
22-Dec-09	TA 2.6	Estimation and Costing	TC 1.4	Engineering Mathematics
Thursday	BCO 3.12	Bridge Engineering	TA 1.4	Engineering Mathematics
	BAO 3.5	Landscape Architecture	TC 2.4	Mechanics of Solids
			TA 2.4	Structural Mechanics
			AC 1.4	Foundation Engineering
			AA 1.4	Foundation Engineering
			BC 2.4	Optimization in Structural Design
			BA 2.4	Advanced Structural Design

Date& Day	Forenoon Session (10.00 AM to 1.00 PM)		Afternoon Session (2.00 PM to 5.00 PM)	
23-Dec-09 Wednesday	BCO 3.14	Pollution & Control Engineering	TC 1.5	Engineering Drawing
	BAO 3.6	Disaster Management for Buildings	TA 1.5	Engineering Drawing
	BCO 3.24	Water Resource Management	TC 2.5	Basic Structural Design
			TA 2.5	Theory of Structures
			AC 1.5	Reinforced Concrete Structures & Advanced Concrete Technology
			AA 1.5	Reinforced Concrete Structures & Advanced Concrete Technology
			BC 2.5	Environmental Engineering
			BA 2.5	Environmental Engineering
24-Dec-09 Thursday	BCO 3.16	Industrial Waste Treatment & Disposal	TC 1.6	Engineering Chemistry
	BAO 3.7	Advanced Comp. Application for Arch.	TA 1.6	Engineering Chemistry
	BAO 3.8	Climatology & Architecture	TC 2.6	Environmental Engineering
			TA 2.10	Environmental Engineering
			AC 1.6	Design of Steel Structures
			AA 1.6	Design of Steel Structures
			BCO 3.7	Building Science
			BAO 3.1	Elements of Town Planning & Architecture

Notes: -

a. ICE (I) has the right to change the schedule of subject/s on account of unavoidable circumstances.

b. Candidates must carry the Membership Card & Admit Card to seek entry to the Examination Hall.

c. The Examination hall will be opened 15 minutes before the time specified for the commencement of the Examination No candidate who is late by more than 30 minutes shall be admitted.

d. Candidates using unfair means shall be dealt with as per rules of ICE(I) in this behalf.

e. The result of the examination is likely to be declared after four weeks of the last examination held.

f. Candidates to bring their own drawing board/instrument box for Engineering Graphics paper.

g. Only Non-Programmable Calculators / Standard, Design-Data Books, Log Tables are permitted in the Examination Hall.

TC :	T. Engg. (Civil)	AC :	AMICE(Civil) Section A	BC :	AMICE(Civil) Section B	BCO :	AMICE(Civil) Section B (Optional)
TA :	T. Engg. (Arch.)	AA :	AMICE(Arch.) Section A	BA :	AMICE(Arch.) Section B	BAO :	AMICE(Arch) Section B (Optional)

There are two kinds of people, those who do the work and those who take the credit. Try to be in the first group; there is less competition there.

Snippets

Last Date for Enrolment

31st October,2009 is the last date for Submission of Membership & Examination Form for Associate Membership Examination [AMICE(I)] & Technician Membership Examination [T.Engg.] for December,2009 Examination.

Result of Summer-2009 Examination

Results of Summer-2009 Examination is likely to be declared in the last week of August,2009. Candidates can contract their respective Institutional Member Students' Chapter/ICE(I) Offices for the purpose.

Examination Date Sheet Announced

The Date Sheet for Winter 2009 Examination has been announced. The Winter Examination starts from 18th December,2009. Detailed Date Sheet is available in this issue of the "Civil Engineer" Newsletter.

ICE(I) Allows the Students to Write their Examination in Hindi Medium

ICE(I) has notified that the candidates will now have the option to write their Examination in Hindi Medium from the Winter 2009 Examination. However the Question Paper will be available only in English Medium but the candidates will have the option to write in Hindi Medium if they so desire. They will indicate the Medium of Examination in their Examination Form while registering for Examination.

Recognition of ICE(I) Examinations

We welcome Govt. of Nagaland by joining the Family of ICE(I) by according the Recognition to the Examinations conducted by ICE(I)

Question Answer Box

ICE(I) invites questions from readers which will be answered by the Editor through Q/A Box.

ANNUAL GENERAL MEETING OF ENGINEERING COUNCIL OF INDIA (ECI)

The 7th Annual General Meeting of Engineering Council of India (ECI) was held on 28th May,2009 at India Habitat Centre, Lodhi Road, New Delhi Shri Prithipal Singh, Secretary, ICE(I) attended the Annual General Meeting of Engineering Council of India (ECI) on behalf of ICE(I).

LECTURE ON "ORGANIZING TO COPE WITH GLOBAL WARMING"

ACRIER arranged a lecture on "Organizing to Cope with Global Warming" by Prof. Thomas C. Schelling at ShangriLa Hotel, New Delhi on 22nd June,2009 which was attended by Shri Prithipal Singh, Secretary ICE(I).

SEMINAR ON "ROAD TO REFORMS RETHINKING CURRICULUM"

The Education Times of Times of India presented a Seminar on "Road to Reforms : Rethinking Curriculum" on 11th August,2009 at Hotel Le Meridien, New Delhi Sri Prithipal Singh, Secretary ICE(I) participated in the Seminar which was well attended by prominent Educationists Bureaucrats & others.

CONFERENCE ON "DELHI : A WORLD CLASS IN THE MAKING"

The Confederation of Indian Industry organized a Conference on "Delhi: A World Class in the Making" on 18th June,2009 at Hotel Le Meridien, New Delhi. **Hon'ble Minister Dr. M.S. Gill, Ministry of Youth Affairs & Sports,** Government of India was the Chief Guest and the key note address was delivered by **Ms. Sheila Dikshit, Chief Minister, Govt. of NCT of Delhi**, Shri Prithipal Singh, Secretary ICE(I) attended the Conference.

ARTICLES INVITED FOR "CIVIL ENGINEER" NEWSLETTER

ICE(I) invites articles on Civil Engineering and Architectural Engineering related to the Diploma & Degree Programme of ICE(I) for publication in the Newsletter on their acceptance. All concerned with ICE(I) are welcome to send their contribution.