

From: ICF Staff Club  
AG129/18,VII Main Rd  
AnnaNagar,Chennai-40

To



# INTEGRAL NEWSST

Issue# 125

Free Monthly News Bulletin – for Internal Circulation

March 2016

Email: [integralnewsicf@gmail.com](mailto:integralnewsicf@gmail.com)

Contact: **900 314 1464**, 9539, 9659, 9731, Rly **46490**, 47661

**Chief Editor: K.Ravi, SSE/Shop80**

Associate Editors:

M.A.Jaishankar, SSE/Proj

A.R.S.Ravindra, SSE/Proj

Treasurer: R.Mehalan, SE/IT

Shell Offices: R.Thilak, Tech Trainee

S.K.Satishkumar, SSE/Proj

K.Sekar, Ch.OS/Engg

N.Jeganivasan, Stores Inspector

N.Ganesh,SSE/MPO/S

S.Ghatikachalarao,SSE/WS

N.Devaraju, SSE/Plant

V.Sasikala, OS/PB

B.Jayalalitha, Accts Asst

Shell Shops: P.Baskaran, SSE/40

A-shed: R.Nagarajan,, SSE/10

B-shed: A.V.Gopalakrishna, SSE/22

Shop 24,25,26: N.Ravikumar, SSE/26

D&L-shed:P.T.Sreevalsan, SSE/13

40,J,E: R.Lakshminarayanan, SSE/40

48,RPF: R.Senthilnathan,SSE48

11,23,41,TS:R.Jegathiswaran,SSE/41

Insp: J.Ananthakumar,SSE/42

Progress: P.K.Panda,SSE/PCO

CMT: G.Sivakumar, CMS-1

Electrical:D.T.Vijayaraj,SSE/45

Stores : K.Sundar, OS/RB1/SD

Fur Offices:Harikumar.NV,SSE/MPO

Accts: Sudharsan.MN,SSO/Accts

PlgF,TS: G.V.Ramesh,SSE/TS/F

Stores:V.Annamalai,OS/P7

Fur Shops: R.Sundarrajan,SSE/30

30: Bipinkumar Karn, SSE/30

32,34: P.Sathyanarayanan, SSE/PC32

33:D.R.Suresh,SSE/33

37, 82 : P.Udayasankaran, SSE/56

80,81:D.Santhakumar,SSE/80

88,CCO: K.S.Rajakumar, SSE/88

Elect,CMT,IOW: M.Devaraj, SSE/85

36,54: R.M.Chandrasekar,SSE/54

Progress:D.Baskar, SSE/PCO

RRM, Colonies : A.Srivijayan, SSE54

TTC: J.Selvakumar,SSE/TTC

D&D: Sabapathinathan.M,SSE/D&D

Hospital: Raju Balaji, Ch.OS

Web: P.Krishnakanth, Webmaster/IT

74,Tele,Union: D.N.Ramesh,SSE/Proj

Advisors:

S.Muthukumar, Dy CME/SR

B.Chandrasekaran,SME/D-II

K.N.Mohan, PE/PR/S

R.Srinivasan, APE/PR/F



AC 2-tier coaches for Ministry of Defence were flagged off by Shri Ashok Kumar Agarwal, GM/ICF and Major General K.Uma Maheswar VSM, Addl DG, Ministry of Defence on 4<sup>th</sup> Feb at Fur/ICF.



Shri Suresh Prabhakar Prabhu, Hon'ble Minister for Railways, flagged off the 1<sup>st</sup> LHB AC 3 tier coach (LWACCN), last Power Car (LWLRRM) of the year and 24<sup>th</sup> EMU rake of MRVC Phase-2 through video conferencing on 12<sup>th</sup> Feb.

*I congratulate all employees of ICF for putting up an extraordinary performance during February 2016 by producing 201 rail coaches, which included 5 EMU rakes, 10 LHB Power Cars besides others. ICF is on course to manufacture 2000+ coaches during 2015-16 which will be a record. On this occasion I acknowledge and appreciate the excellence displayed by all members of team ICF. May God bless you all.*

**- ASHOK K.AGARWAL, GM/ICF**



ICF Silver Jubilee Nursery and Primary school celebrated its 51<sup>st</sup> annual day on 3<sup>rd</sup> Feb at Dr Ambedkar Arangam. Shri. Ashok Kumar Agarwal, GM, was the guest of honour for the function. Smt. Sudha Agarwal, President, ICFWWO, gave away merit prizes to the winners. Students from LKG to 5<sup>th</sup> std showcased their talents and the cultural extravaganza was the highlight of the day.



Smt Sudha Agarwal, president, ICFWWO, was the chief guest of Republic day celebration in GEMS school.

Twenty-seven railway officers and railwaymen were conferred awards by the National Academy of Indian Railways (NAIR) on 1<sup>st</sup> Feb on the occasion of 65<sup>th</sup> Foundation Day celebrations. Shri R.Ravichandran, PE/PL/S, was awarded DG's medal for standing first with distinction in Group B foundation programme course BFP-02/15.



Shri S.Prakash, SSE/Plg/S, receiving award from GM for best innovation as part of the national productivity week celebrations. Shri S.M.Soundararajan, SSE/D, Electrical also received the award from GM.

Two wheeler parking lot on the rear of IT centre was inaugurated by GM on 26.02.16.



First time in the history, Indian Railways has won the National Chess team Championship in the 36<sup>th</sup> Championship held at Bhubaneswar from 8<sup>th</sup> to 14<sup>th</sup> Feb. The team consisted of the following Chess players: Karthikayan/ICF, Deepan Chakkravarthy/ICF, Swapni Dhopade/CR, Rathnakaran/SR and Arghyadip Das/ER.



Shri K.Premkumar, Jr.Clerk PB/Shell, has won Silver medal in long jump in the Asian indoor athletic championships held at Doha, Qatar.



Shri Poorna chandran JE/30, participated in Mr Tamilnadu competition on 31.01.2016, and got 1<sup>st</sup> place in his category and second place in overall competition.



Miss.V.Thenmozhi, Trade MGL secured II rank in the All India competition of Apprentices conducted by Director General Training (DGT). She is the first girl to win the prize at All India level. More than 2000 companies like Tata, BHEL, BEML participated.

A book fair exhibition from the publishers of Amar Chitra Katha was held on 11 & 12<sup>th</sup> Feb at ICF Silver Jubilee Nursery and Primary School.



S. Shamini, D/o.M.Senthil kumar, Tech-1/shop-80, has presented a paper titled "Exploring bioactive molecule isolated from the root exudates of tissue culture raised alliumcepa by hydroponics" in the second international symposium on 1<sup>st</sup>&2<sup>nd</sup> March 16 at Delhi. She is the only girl from Tamilnadu to get selected. She is doing PHD in bio chemistry.

### OFFICIAL POSTINGS

Name S/Shri/ Smt	Previous	Present
Arindam Lai	Leave	DyCMM/DC
TDR	DyCMM/DC	Training
K.S.Jain	CWE/F	CPM
Manish Pradhan	CPM	CWE/F
Arun Devraj	DyCME/Poj	Curator/RRM
Varghese Joshua	Curator/RRM	DyCME/Shell
M.Chandrakumar	DyCME/Shell	DyCME/LHB
R.Sundararajan	Training	DyCME/Proj
V.Kalyanasundaram	DyCME/LHB	Leave
J.Chandrasekararao	CMT	DyCC&M
N.Sundararajan	Leave	SMM/M/F
V.Pughazendhi	SMM/M/F	Leave
S.Jayapragash	SME/MRVC/F	Leave
S.Narendran	APE/PI2/S	SME/MRVC/F
Anshukumar	AME/Dev	AWM/A1/S
Atul Prakash Yadav	AWM/A1/S	Long Absent
Milind Rao Chimrukar	SSE/D&D	APE/PL2/S

### PERSON OF THE MONTH

		
Shell: Aug'15 T.Peter, SrTech/shop-18	Shell: Sep'15 K.Madhanagopal SSE/Planning	Shell: Oct'15 K.Sriraman JE/Shop-21
		
Shell: Nov'15 A.Muthu vaidyanathan SSE/Shop-40	Fur: Oct'15 G.BalajiMohan SrTech/Shop-30	Fur: Nov'15 N.Srinivasa Raghavan SSE/Planning

GM/ ICF on 23<sup>rd</sup> Feb inaugurated the Domestic Efficient Lighting Programme (DELP) at ICF. Under this scheme, 7W LED bulbs @maximum 10 per employee were issued at a cost of Rs100 per bulb.10000 numbers were received and it got exhausted within 2 days. ICF is arranging the second lot and it is expected during March 2<sup>nd</sup> week.

We deeply mourn the sudden demise of S.Rajasekar, SSE/designs.

### EMPLOYEES RETIRING on 31<sup>st</sup> March '16

1	Subramanian.G	PRO	
2	Sundaresan.P	Helper	10
3	Isreal.M	Tech-1/MSM	10
4	Palani.D	Tech-1/FGL	13
5	Rajendran.R	SrTech/MSM	18
6	Elumalai.S	Tech-1/Welder	18
7	Sivaraj.S M	JE	21
8	Udaya Kumar.K	SrTech/Ele	21
9	Mani.R	SrTech/Serang	22
10	Natarajan.M	Tech-1/FGL	22
11	Ummer.T	SrTech/Welder	23
12	Govinda Rao.C	JE	25
13	Marimuthu.V	JE	41
14	Gunasundar.G	SrTech/FTR	41
15	Rajakumari Alias Raji.	Tech-3/Ele	46
16	Venkatesan.S	SSE	PlgS
17	Sankar.S	SrTech/Ele	29
18	Selvakumar.CP	SrTech/Ele	29
19	Asirvadam.M	SSE	29
20	Thirunavukkarasu.K	Pointsman	30
21	Somasundaram.S	SrTech/Carp	30
22	Lakshminarayanan.V	SrTech/Carp	30
23	Mohanasundaram.K	SrTech/FGL	30
24	Panneer Selvam .G	SrTech/Serang	30
25	Gnanasekharan.P	SrTech/Ele	39
26	Sampath.P	Tech-1/Ele	39
27	Rajendran.B	JE	54
28	Sudarson.KR	SrTech/Paint	54
29	Subramani.D	SrTech/FTR	81
30	Vijayakumar.B	SrTech/Ele	85

*- We wish them A Happy & Peaceful Retired Life*

There are four schools in the vicinity of ICF elementary school which was previously functioning at East colony has been shifted to the premises of ICF HSS. The elementary school has a strength of 150 students approximately. The children belong to economically weaker sections and are in dire need of essential items such as school uniform etc. a humble request to all employees, amongst whom there may be past pupils of that school (either self or parents), to kindly contribute your mite to the welfare and education of the children of ICF elementary school. For contribution please contact the head mistress Ph No 9791013590.

### CIRCULARS

AC01: Grant of national calamity advance.

JPO1/16: Additional relief on death /disability of govt servants covered under NPS.

### Last Date for submission of application:

Investigation Inspector/Vigilance/Rly Bd: 20.3.16

Selection of OS under LDCE: 18.04.16

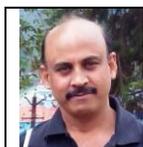
PS2 & steno Gr-1 in RCT/Chennai : 15.03.16

SSE,JE.Artisan for Rly electrification, Kolkata: 28.03.16

Curator and other posts in Rastrapati Bhavan museum on deputation for three years: 25.03.16

Publicity inspector 1UR post : LD 30.03.16.

Rly week celebration competitions, Wealth from waste, slogan writing, painting, quiz and music: LD 16.03.16



## ABOUT ICF - Part III

by Sri R. SRINIVASAN, APE/PR/F,

Ph:9003141449, rsrinivasanicf@gmail.com

### DESIGN & DEVELOPMENT :

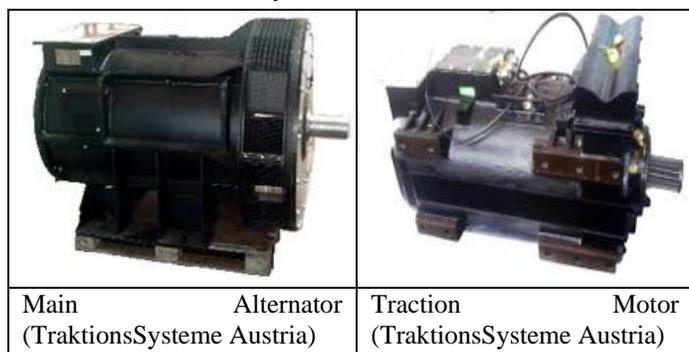
#### 1600 HP 3 pH DEMU:

##### Introduction:

- HHP DEMUs are equipped with the conventional AC-DC power transmission with cam shaft-operated switches. Such power transmissions are maintenance-intensive and less efficient.
- AC-AC transmission system envisages improvement in reliability, haulage capacity, efficiency and ease of maintenance. The system is equipped with the IGBT (Insulated Gate Bipolar Transistor) switching technology which is practically maintenance-free.
- Use of IGBT devices, thus reduces the current requirement resulting in reduction of heat generation, in turn facilitating use of much smaller and lighter units.
- The faster switching process also benefits by way of much smoother and uniform (jerk-free) train acceleration.
- The technical requirements for the 3-Phase AC-AC propulsion system for DEMUs were approved by RDSO in September 2007.

##### Details of Engine, Electrics:

- The Transmission System Electrics were indigenously sourced from Medha Servo Drives, Hyderabad.
- Traction Alternator & Traction Motors were imported from M/s Traktions systeme, Austria.



- As for the power source, the 1600 hp diesel engine model KTTA-50L of Cummins Make was chosen.



- For system Integration test Cummins 1600HP diesel engine, TSA Alternator type TG 71-59-6, Medha Power rectifier M648RECT, Traction Inverter M648TC and Traction Motors TME 48-45-6 were used.
- The propulsion system was also equipped with indigenous microprocessor-based control system. The

propulsion is further controlled through individual converters for each bogie.

- 3-phase asynchronous traction motors power all the four axles of DPC and Air-cooled underslung twin converters have been provided.

##### Technical features:

##### Rake formation – 10 cars.

DPC+TCV+TCG+TCG+TCG+TCG+TCG+TCG+TCV+DPC

DPC – Driving Power Car, TCV - Trailer Car (Vendor)

TCG – Trailer Car (General)

Max. Speed 110 kmph

##### Passenger capacity

	DPC	TCV	TCG	Per Rake
Seating	37	89	84	756
Standees 8/SqM	76	246	247	2126
<b>Total</b>	<b>113</b>	<b>335</b>	<b>331</b>	<b>2882</b>

##### Weight (tonnes):

	DPC	TCV	TCG
Tare	73.20	35.70	37.30
Gross	80.70	58.50	58.80

##### Salient Features :

- Stainless steel body coach with straight sidewalls designed on LHB platform with Zero camber
- Stainless steel aerodynamic nosecone at front end of DPC
- Improved design underframe with long running CRF centre sills to reduce deflection
- 1600hp engine meeting latest EU stage IIIA emission norms (Models –CAT 3512C or Cummins QSK50) with Electronic Fuel injection
- On board Diesel Electric power pack
- IGBT-based 3-phase AC-AC transmission with microprocessor-based vehicle control system with built-in diagnostics
- Two traction inverters –underslung –aircooled-each to power the 3- phase squirrel cage motors mounted on each bogie. Bogie control philosophy adopted.
- One auxiliary inverter –underslung-air cooled-to supply power to compressor motor, lights, fans and battery charging –can supply power to other basic unit in case of failure of converter in other DPC
- Motor driven compressor –air dryer module – under slung design with noise suppression mountings
- User-friendly FRP driver desk with joystick controls and two HMI ( Human Machine interface ) digital displays



- Train communication through MVB (Multifunctional vehicle Bus )
- Digital Fuel sensor –display at HMI Screen
- LED Destination board
- DEMU remote monitoring system –through GPS / GPRS/ CDMA for real time fault diagnostics
- GPS-based Passenger Information system with Double side LED Displays for enhanced visibility and passenger Announcement system
- Two 1500mm-wide sliding doors aside in case of TC and one door aside in case of DPC
- Compartment for Ladies and Physically disabled persons in DPC
- 1280mm-wide vestibule opening in the ends for easy movement of passengers between coaches
- Aesthetic Aluminum composite panels interior paneling with concealed screws.(first two rakes with FRP and a few rakes with LP panels)
- Ergonomic cushioned seats with stainless steel frames with bottle holder
- Polycarbonate handholds with nylon straps
- Stainless steel slip-free flooring
- Wide windows with polycarbonate fixed louver on top and movable shutter at bottom half
- Trailer coaches provided with toilets
- Schaku type semi permanent couplers
- Sleek design of Inter Vehicular electrical couplers
- Electrically operated wipers with washer tank for water spray
- CCTV surveillance cameras planned in Drivers cab and ladies compartment for future
- Electro pneumatic brake system with SS piping
- Spring loaded Parking brakes on DPC which can be applied from driver's cab
- Bogies with air spring suspension in the secondary stage

--- To be continued...

Physio page could not be published this month. It will continue from next month.

#### **Rail Budget:**

Setting aside a sum of Rs. 50 crore for innovation grants to employees, startups and growth-oriented small businesses; Innovation labs to be set up in workshops and production units to support creative innovation by locals and staff; Annual innovation challenge: To develop a Test Track for testing prototypes; Production units and workshops to aim at generating annualised revenues of about Rs 4,000 crore by 2020 through manufacturing products for domestic and international markets.

For the staff involved in hot work, special leather safety gloves are going to be procured and the UL No is 02752085320201

Cancer awareness camp for women was conducted by Chennai Pain and Palliative Care in association with Creative Women Creation Social Welfare Trust on 21.02.16 at Villivakkam.

#### **Salient features of AC 2 tier coaches for Military**

- Self generation 2 tier AC sleeper class
- Four underslung water tanks of total capacity 2176 litres.
- Four stainless steel auxiliary water tanks of capacity 38 litres each on board
- Two RO plants with 75 litres of water tank
- Public Address-cum-Music system with individual volume control facility at each bay
- Two sets of fly catchers at lavatory end
- SS shelf with mirror on each bay
- Double acting swing doors
- Zero discharge bio retention tanks in all lavatories
- Two 25kW bogie-mounted alternators for self generation
- 100 AH VRLA battery
- Inter vehicle coupler plug & socket at end walls for external feed from DG set of adjacent Langar coach
- Individual laptop & mobile charger points for all passengers.

Indian Railways have been sending out welfare inspectors to confirm whether its 2.86L former employees over the age of 80 still drawing their pensions are actually alive.

National Rail Museum celebrated 40<sup>th</sup> Museum Day on 1<sup>st</sup> Feb. On the occasion a resource pack comprising an adventure story book set in Railway environment, E-book CD, Jig saw puzzle and an activity kit to build model electric locomotive was unveiled.

IRCTC has decided to give 10% cash back on food orders of over Rs.300, if ordered on a pre-paid basis.

RCF will export 120 LHB coaches to Bangladesh at an estimated cost of Rs 367 crore, with the first consignment of 40 set to be dispatched in March. 120 LHB coaches include 17 AC first class, 17 AC chair car, 34 non-AC chair car with pantry, 33 Non-AC chair car with prayer room and 19 power car coaches.

In an attempt to stop disrespect to national emblem by passengers, the Western Railway has decided to replace the current wastebaskets on the stations with ones that don't have national emblem on it. This is to ensure the national emblem - which says 'Satyamev Jayate' - is not spit upon by passengers.

Two students, one of them from IIT, have launched a mobile app 'Ticket Jugaad' which uses a unique algorithm to find out availability of seats from the nearest stations, under station-wise quota.

Now Passengers can approach EQ cell to get berth/ seat in case of emergency, with genuine reason and supporting documents. Contact numbers: OSD to CCM: 9003160969 and 044-25354405, Chennai division: 044-25354475, Tiruchirapalli division: 0431- 2418992, Madurai Division: 0452- 2308250, Salem division: 0427- 2431010, Trivandrum division: 0471- 2326484, Palakkad division: 0491- 2552755.

Katni in Madhya Pradesh will have India's longest bridge. The railway bridge will be 14 km on the up line which will be longer than Kerala's Vembanad rail bridge which is 4.62 km long.



## REGIONAL RAIL MUSEUM

by Sri **D.RAVIKUMAR SSE/RRM,**

Ph:9003141491, rhvb151@gmail.com

*Come and Enjoy the Aura of the Decades-long Journey of Indian Railways Heritage Values.*

### OUTDOOR EXHIBITS:

The museum is famous for being one of the places in the country that house vintage locomotives as outdoor exhibits. In fact the museum is a unique example of diversity. As one enters the museum, (s)he is greeted by locomotives, coaches of different shapes and sizes and their accessories.

Some of the Outdoor Exhibits are as under:

#### NG Darjeeling loco

- Manufactured by Baldwin Loco Works, USA during the year 1917.
- This type of Loco ('B' class) was built for the Darjeeling Himalayan Railway. Nicknamed "TOY TRAIN"
- Gauge - 2 ft (610 mm) narrow gauge.
- In 1999, UNESCO accorded the World Heritage Status to Himalayan Railway.



NG Darjeeling Loco

MG Steam Loco

#### MG STEAM LOCO.

- Manufactured at 1909 by: M/s North Britain loco co, England

#### MG Diesel Locomotive.

- Manufactured by Northern British loco ltd, Glasgow (1954).
- YDM type , 700 hp power
- Voith hydraulic with cordon shaft drive to bogies.



MG Diesel Loco

MG Electric Loco

#### MG ELECTRIC LOCO.

- Manufactured at 1964
- By : Mitsubishi, Hitachi & Toshiba of Japan.
- YAM class,
- 25 KV AC single phase 50 cycles.

### CARRIAGES:

- OOTY coaches (First / Second class).
- The charming NMR, blue and cream with wooden coaches with large windows is widely regarded as a marvel of Engineering. This type of train portrayed in the Bollywood movie "Dil Se" (famous song "chhaiyya

"chhaiyya" was filmed atop this train) ran between Mettupalayam and Ooty.

- This is a painstakingly slow train (10.4 kmph) - winds through the Scenic Blue Mountain.
- In July 2005 UNESCO accorded the World Heritage status to NMR.



NMR coach



Inspection car

#### Inspection car RA -30

- Manufactured by Metropolitan Carriage and Finance Co Ltd, England.
- This coach participated in the 150<sup>th</sup> year celebration of Indian Railways heritage run.
- Used for General inspection by GMs and DRMs.

#### Inspection car RA -2

- Manufactured by Madras & Southern Mahratta Railway.
- Used by GMs and DRMs.
- Wooden body with IRS underframe.
- Dual brake system.

#### MG hospital van

- Consists of Operation theatre ,12 bed ward ,and doctor's coupe



MG hospital van



MG EMU Coach

#### MG EMU coaches (motor/trailer)

- The motor coach/trailer was built at ICF during 1965.
- The electrical items of motor coach were imported from JAPAN.

#### OHE Inspection Car.

- Simpson make diesel engine.
- Gear box type transmission.
- Vacuum brake
- Manufactured by Kanchrapara workshop / E. Rly.

### NON RAILWAY VEHICLES:



#### Fowler Ploughing Engine:

- Manufactured by John Fowler & co, Leeds, England (1895).
- This engine was the world's first successful mechanical cultivation machine invented by John Fowler.

### BOGIES:

- The Regional Rail Museum is a Bogie park which houses various types bogies of vacuum and air brakes (both BG & MG) and depicts the generation of bogies viz., IRS Bogie, Leaf spring bogie, Laminated spring bogie, co-co wagon bogie, TATA type riveted bogie, All Coil bogie).
- Apart from these, the museum houses a rare collection of NG coaches (RMS, FIRST CLASS etc.,) The museum also houses a number of other railway accessories like Rail bus (a bus-shaped vehicle running on rails), a railway cranes, kit wagon, etc., Besides the above, the museum has semaphore signals of two Quadrant type – 2 no. on both side of mini Toy train station platform.

### LOCO PARK:

- An area of around 9000 sq. Ft in front of the museum was neatly landscaped with Korean grass, Trees, Shrubs Flowering plants etc., to give a good look in the frontal area of the Museum. One Nilgiri 'X' class Steam Loco and MG Diesel Loco is placed alongside which gives a fine view for visitors while seeing the Loco exhibits with a better ambience.
- It includes Special Shrubs like **Ixora Hybrid** variety, Accent Plants like **Ficus black** variety, **UCA**, **Marginata**, Special plant like **Adenium** variety, **Bluemeria Rubra**, Grass like shade grass/ C<sup>2</sup> grass etc.,
- The most exotic thing is the Nilgiri Steam loco and track itself. This is one of the few Rack & Pinion type rail track in the world. The Engine uses a Cogwheel (teethed wheel) on a rail with mating teeth in the centre of the track, to climb the steep uphill.

### CHILDREN'S PARK:

- There are 2 children's parks with different play items, with green lawn and water fountain which attract children visiting the museum. There are Swings, Slides, Merry-go-round in the parks, which provide to children their much required exercise, enjoyment, and refreshment away from their busy schedule of school and home. Soon one more children's park will be opened at RRM with modern play items.
- There is one 3-stage Cascade fountain which is surrounded by plants, creatures etc.,
- Also there are a wide variety of plants and trees including medicinal variety, all over the museum which provide a green and pollution-free environment.

### JOY RIDE:



The museum also has a very exciting attraction for visitors, especially children - a battery-operated toy train which offers an amazing ride and takes them through a small tunnel and around the grounds of the museum. During their ride they enjoy the overall view of the

rolling stock spread over their way, enchanting flowers and medicinal trees. This ride will inspire them to learn about the marvelous legacy of the Indian Railway system. ***Very soon a New additional children's Play Park with modern play equipments like Multi-activity play system, Loop rung, sunset scrambler etc., will be opened to the visitors.***

### CONCLUSION

Why should old railway artifacts be preserved at all? One major argument in support of preservation is that it enable us to realize the fact that it is the *Railways* that made **India a Nation!** On one hand, it keeps alive the romance of rail roaring and on the other, it unites the country. These two combined roles are hardly played together by any other railway in the world.

I hope this article will emerge as a popular one and would be of great value to heritage enthusiasts and visitors who are interested in heritage tourism.

### Sale at RRM:

Sl.	Description	Amount
1	DEMU COACH MODEL	Rs.3750
2	DEMU COACH MODEL	Rs.2250
3	MRVC EMU COACH MODEL	Rs.2250
4	JAN SHATABDI (1:75)	Rs.2250
5	KOLKATA METRO COACH (1:75)	Rs.2250
6	JAN SHATABDI (1:150)	Rs.1500
7	RAJDHANI (1:100)	Rs.1500
8	DURONTO COACH (1:150)	Rs. 500
9	LHB COACH (1:150)	Rs. 500
10	RAJDHANI COACH (1:150)	Rs. 500
11	Greeting cards	Rs. 10
12	Post Card	Rs. 5

- ❖ENTRY TICKET Rs. 10/- PER HEAD
- ❖JOY TRAIN TICKET RS. 10/- PER HEAD
- ❖SCHOOL VISIT RS.20/- PER HEAD.
- ❖College students visit, Industrial visit, In-plant Training RS.30/- PER HEAD
- ❖CELL PHONE WITH CAMERA RS. 20/-
- ❖PROFESSIONAL CAMERA RS.100/-

On 7<sup>th</sup> Feb 7.2.16 MR inaugurated the e-bedroll facility, also called 'personalized take away bedroll', at MAS and TVC through video conferencing. Any confirmed ticket holder traveling in any class can avail of the bedroll either online or across the counter at both the stations. There are two types of bedroll kits. Both types of bedrolls are disposable and passengers can take them home after the journey. Type 1 consists of a bedroll kit costing Rs 140 packed in a non-woven fabric bag consisting of two cotton bed sheets and a pillow. Type 2 consists of a blanket kit costing Rs110 and packed in a non-woven bag consisting of one blanket.

IR has decided to introduce train hostesses in some of the high speed trains. Like flights, there would be hostesses on the train and catering will also match the standard of airliners.

**Employees can meet CME on Wed/Thu between 11.36 and 12.30 hrs with prior appointment and between 16.30 and 17.00 hrs without prior appointment at CME's chamber.**

## Railway Budget Highlights

Restructuring Railway Board on business lines, Forming cross-sectoral directorates, Setting up Railway Planning and Investment Organisation, Setting up a holding company for Railway PSUs, Creating a separate organization Special Railway Establishment for Strategic Technology & Holistic Advancement (SRESTHA) for R&D, Creating an organization Special Unit for Transportation Research and Analytics (SUTRA) for data analytics, Setting up duly empowered missions to take forward 7 activities with time bound targets – missions are for switching over to 25 tonne axle load, increasing speeds, accounting reforms, commissioning 100 sidings/PFTs in 2016-17, preparing a blueprint of utilizing the network once DFC is commissioned, zero accident for safety and for procurement and consumption efficiency.

Introduction of Antyodaya Express, a long-distance, fully unreserved, superfast train service. Addition of Deen Dayalu coaches in some long distance trains for unreserved travel with facility for potable drinking water and a higher number of mobile charging points. Humsafar would be fully air-conditioned third AC service with an optional service for meals. Tejas will showcase the future of train travel in India. Operating at speeds of 130 kmph and above, it will offer onboard entertainment, local cuisine, Wi-Fi, etc. Overnight double-decker, Utkrisht Double-Decker Air-conditioned Yatri (UDAY) Express on the busiest routes. Designing coaches to ensure higher carrying capacity and automatic doors, bar-code readers, bio-vacuum toilets, water-level indicators, accessible dustbins, ergonomic seating, improved aesthetics, vending machines, entertainment screens, LED lit boards for advertising, PA system. Sale of tickets through hand held terminals. Sale of platform tickets through ticket vending machines both cash and card compatible. E-ticketing facility to foreign debit/credit cards for foreign tourists and NRIs. E-booking of tickets on the concessional passes available to journalists. Facility of cancellation through the 139 helpline using 'One Time Password'. Bar coded tickets, scanners and access control on a pilot basis. Progressive CCTV coverage at tatakaal counters. 'Vikalp' (Alternative Train Accommodation System) scheme to be expanded. IRCTC to manage catering services in a phased manner. Extending e-catering services to all 408 'A-1' and 'A' class stations. Making catering services optional in trains. Stalls at station to provide multiple products including milk products and OTC medicines. Option to our customers for drinking tea in kulhad. To convert all operational halts into commercial halts. Information boards in trains to list on-board services and also GPS based digital displays inside coaches to provide information regarding halts. A1 class stations to be manned with duly empowered Station Directors supported by cross functional teams. Passenger amenities and beautification on stations at pilgrimage centres. Aastha circuit trains to connect important pilgrim centres.

'Clean my Coach' service through SMS. Ranking of A1 and A stations based on periodic third party audit and passenger feedback. Waste segregation and recycling centres. 'Awareness campaigns' for cleanliness. Additional 30,000 bio-toilets. Providing portable structures with bio-toilets at all platforms of select stations for senior citizens, Divyang and women.

Starting a time-tabled freight container, parcel and special commodity trains on a pilot basis. Container sector to be opened to all traffic barring coal and specified mineral ores and part-loads during the non-peak season. Existing terminals/sheds to grant access to container traffic, where feasible. Review of tariff policy to evolve a competitive rate structure vis a vis other modes, permit multi-point loading/unloading and apply differentiated tariffs to increase utilization of alternate routes.

Signing long term tariff contracts with key freight customers using pre-determined price escalation principles. To develop Rail side logistic parks and warehousing in PPP mode. 10 goods sheds to be developed by Transport Logistics Company of India (TRANSLOC) in 2016-17. India's first rail auto hub in Chennai to capture automobile traffic. Leasing of general purpose wagons. Customer Managers to liaison with our major freight stakeholders.

To reduce energy consumption in non-traction area by 10% to 15%; all new light provisions will be LED luminaire only. RWH systems will be provided in a phased manner in all establishments having rooftop areas of more than 200 square metres. Environmentally friendly composite sleepers made up of recycled plastic waste will be used over all girder bridges. Tender documents for 50 MW solar plants at rooftop issued and facility for another 100 MW being set up. To commission 132.5 MW of windmill power plants in 2016-17. Automatic coach washing plants to be commissioned in major coaching depots with a holding of more than 500 coaches. To convert all production units as well as at least one workshop in each Zonal Railway as green industrial unit

To tie up with the Ministry of Health for ensuring an exchange between Railways hospitals and Government hospitals. Introduce 'AYUSH' systems in 5 Railway hospitals. All gang men to be provided devices called 'Rakshak' which will intimate them about approaching trains. To reduce weight of the tools carried by gangmen while patrolling. Provide toilets and air-conditioning in cabs for loco pilots. One C T Venugopal chair on Strategic Finance, research and policy development. One Kalpana Chawla chair on geo-spatial technology for IR. Rail University at Vadodara. Skill development on IR premises with Ministry of Skill Development. Railway Workshops and Production Units to develop 'Centres of Excellence for Skill Development', focusing on one/two specialized activities for the general public. Join hands with prominent NGOs to provide skilling to people in remote areas including wards of Railways employees. Porters to have new uniforms and train them in soft skills, to be henceforth called sahayak.

Expansion of Sarathi Seva to help old and disabled passengers requiring assistance at stations. Strengthen existing services for enabling passengers to book battery operated cars, porter services, pick up and drop, and wheel chair services – Rail Mitra Sewa. Ensuring all stations under redevelopment are accessible by Divyang. At least one Divyang friendly toilet at each platform in A1 class stations in 2016-17.

For passengers transiting railway network for freshening up before moving on with their business for the day, hourly booking of retiring rooms to be allowed instead of the existing minimum of 12 hours. Retiring rooms to be handed over to IRCTC for management. To make available of children's menu items on trains. Baby foods, hot milk and hot water to be made available on stations. Changing boards for babies would be provided in train toilets. CCTV cameras would continue to be installed in coaches. Sub-quota in allotment of stalls. Encouragement to self-help groups to supply food on trains

Open up IR to 100 students across Engineering and MBA schools for 2-6 months' internships each year. Wi-Fi at 400 stations in next two years. Rs. 50 crore earmarked for Innovation Fund for encouraging innovations and start-ups.

Integrating various facilities into two mobile apps - one dealing with all ticketing issues and the other for receipt and redressal of complaints and suggestions. Physical progress on DFC to be monitored in 2016-17 using latest drone and Geo Spatial based satellite technology. Award of tenders electronically to be rolled out on a Pan-India basis in 2016-17.