

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. iii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	<a href="#">Management</a>	The Andhra Journal of Industrial News	The Telangana Science Journal	<a href="#">Mana Sanskriti (Our Culture)</a>
<a href="#">Vegetarian Links</a>	<a href="#">Disclaimer</a>	<a href="#">Solicitation</a>	<a href="#">Contact</a>	VPC	<a href="#">Vedah-Net</a>

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

### CONTENTS

- TOP 10 INNOVATIONS OF 2017
- PIPE DREAM IN CHICAGO
- MANUAL LABOR IS NO MATCH FOR MACHINES
- ELECTRIC MOBILITY DECADE
- COMBINED HEAT AND POWER (CHP)
- THE EMERGENCE OF INTANGIBLE CAPITAL (IC)

### [TOP 10 INNOVATIONS OF 2017<sup>1</sup>](#)

The Scientist journal identified the following ten as this year's the top ten best new products:

- IsoCode ChipS MADE BY IsoPlexis: Single Cell Technology.** IsoCode chips come in 10 different panels, ranging from 24 to 42 antibodies per panel, at a cost of \$500–\$600. The automated IsoLight imaging and workflow platform can be purchased starting at \$200,000.
- i-STAT Alinity of Abbott: A latest version of handheld blood-testing device for blood sampling,** Alinity came on to the market a year ago, and is available **outside the US** for \$7,000 to \$12,500 USD.
- QGel's Assay Kit for Organoids: Synthetic Extra Cellular Matrix** QGel Assay Kit for Organoids costs about \$4,000 to \$5,000, and enables approximately 3,000 experiments.
- Intabio's Blaze Microfluidic System:** Blaze speeds things up by integrating detection, quantitation, and identification into one microfluidic system that sends proteins for mass-spec analysis immediately after detection, obviating the laborious process of prepping material for mass spec separately. Estimated cost is between \$70,000 and \$200,000, and a reagent kit for 100 samples will run between \$5 and \$10.
- Quanterix's SR-X Ultra Biomarker Sensitive Detection System for Biological Sampling:** Quanterix brought its Simoa biomarker detection technology to the lab bench, launching the compact SR-X system. The platform offers more than 80 different assays to test samples—typically blood or serum, but some assays are also compatible with cerebral spinal fluid or single-cell lysates—for the presence of cytokines, other markers of neurodegeneration or neuroinflammation, and more.
- Promega's HiBiT Protein Tagging System:** When the small and easily integrated 11-amino-acid tag (High BiT or HiBiT) interacts with the complementary Large BiT (LgBiT) 156-amino-acid component, they bind

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేదు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	<a href="#">Management</a>	The Andhra Journal of Industrial News	The Telangana Science Journal	<a href="#">Mana Sanskriti (Our Culture)</a>
<a href="#">Vegetarian Links</a>	<a href="#">Disclaimer</a>	<a href="#">Solicitation</a>	<a href="#">Contact</a>	VPC	<a href="#">Vedah-Net</a>

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేదు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

tightly and release detectable light. Researchers can incorporate the small HiBit tag just about anywhere on a protein of interest using CRISPR-Cas9, another preferred expression system, or one of Promega's plasmids, which can be purchased for \$395. Promega also offers the option to license the sequence of the HiBiT tag free of charge. Detection reagents start at \$160 and, depending on which reagents and volume are needed, cost as much as \$8,925.

- 7. Dharmacon's Edit-R crRNA Human Genome pooled CRISPR Screening Platform:** The catalog libraries, available in 96- or 384-well plate formats, come in sizes that can target from 50 to around 18,500 genes for between \$2 and \$15 per well, Baskin says, or between \$8 and \$60 per gene.
- 8. Chromium Transcriptome & Whole-Genome Analyses:** One property that makes the technology unique is its ability to differentiate whether a given allele came from the maternal or paternal chromosome. The controller for the single-cell system costs about \$75,000; there's also a Chromium controller that adds in a whole-genome sequencing functionality, available for \$125,000.
- 9. Thermo Fisher Scientific's TSQ Altis Triple Stage Mass Spectrometer** can be used widely in analytical, forensic toxicology, and clinical research applications, **which** affords enhanced ion-transmission consistency **with** active-collision cell, where ionized samples collide with a neutral gas and fragment, which ensures fast, selective reaction monitoring and resulting boosts in productivity.
- 10. Thermo Fisher Scientific's Invitrogen TrueCut Cas9 Protein v2** has been engineered to maximize cleavage efficiency and accelerate the process of Genome Editing. Thermo Fisher Scientific offers TrueCut in two concentrations: 1 µg/µL for standard editing assays and 5 µg/µL for more challenging assays. At the lower concentration, the company offers 10 µg for \$85 or 25 µg for \$108; 100 µg of the higher concentration costs \$230.

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय | तमसो मा ज्योतिर्गमय | मृत्योर्मा अमृतं गमय | ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stepped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

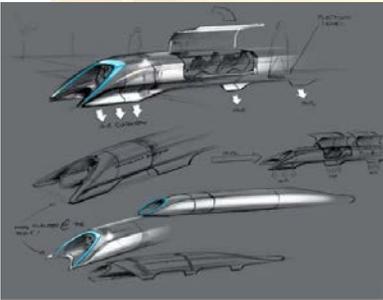
Home	The Foundation	<u>Management</u>	The Andhra Journal of Industrial News	The Telangana Science Journal	<u>Mana Sanskriti (Our Culture)</u>
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

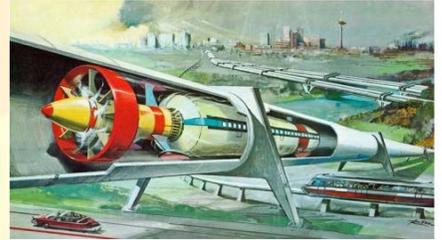
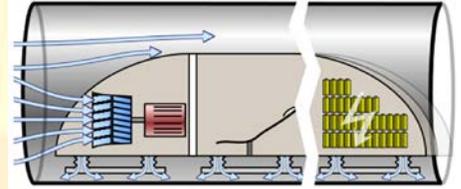
### PIPE DREAM IN VACCUUM<sup>2</sup>



Elon Musk, of SpaceX and Tesla Motors, revealed his futuristic "Hyperloop" transportation system on August 17, 2013.

Japan inaugurated the era of high-speed bullet trains almost 50 years ago with "Shinkansen" trains, which whisked passengers to and from Tokyo at the then-unheard-of speed of 130 mph (209 km/h) in 1964. Japan's world's fastest LO trains are on schedule to be ready for passengers in 2027 on the line connecting Tokyo with Nagoya, a trip of about 218 miles (351 kilometers) that will take just 40 minutes instead of the usual 90 minutes<sup>3</sup>.

A hypothetical high-speed transportation system called Hyperloop or vactrain is a concept first proposed in 2013 by Elon Musk, CEO of Tesla Motors and SpaceX, which would transport passengers in floating pods inside low-pressure pipes at about 750 mph (1,200 km/h)<sup>4</sup>. It's based on the very high-speed transit (VHST) system proposed in 1972, which combines a magnetic levitation train and a low pressure transit tube. It evolves some of the original ideas of VHST, but it still uses tunnels and pods or capsules to move from place to place<sup>5</sup>. A pipe or loop may come to the Loop - could happen if Elon Musk builds a Hyperloop linking downtown Chicago with O'Hare International Airport<sup>6</sup>.



Unrelated to Elan Musk, Hyperloop Transportation Technologies Inc. has signed up to build the 5-mile long world's first Hyperloop test track in California along the Interstate 5<sup>7</sup>. Arrivo is the newest entry in the race to turn Elon Musk's Hyperloop concept into a functional transportation system. [Virgin Hyperloop One](#) said at a conference in Washington DC on April 6 that it had 11 proposals in the US and 24 proposals from outside the US<sup>8</sup>.

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేదు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేదు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

China Aerospace Science and Industry Corporation (CASIC) in August 2017 that it started research on a High-Speed Flying Train able to reach 4,000 km per hour (2,485 miles per hour). That is 10 times faster than the world's fastest bullet train (which is also in China), four times faster than commercial flights, and over three times the speed of sound (1,225 km/h). The Flying Train is a passenger pod that uses magnetic levitation and travels through a near-vacuum tube, similar to that of the Hyperloop<sup>9</sup>.

### LABOR IS NO MATCH FOR MACHINES

It happened before, but it was forced upon the Indian Continent enforced by the Imperial British Empire's brutal Capitalism<sup>10</sup>. Today, it is the Globalization of the Markets and the brutal competition from which America wants to run away by building walls and breaking global treaties<sup>11</sup>.

Apart from posing a great threat to Kerala State's cashew industry in the international market, kernels from Vietnam have now started entering the Kerala markets too. If proper innovative interventions are not made to counter the threat, the Vietnam kernels could turn out to become a serious threat to domestically processed kernels in the domestic markets too. Being comparatively cheaper than the cashew processed here is the main attraction for the Vietnam kernels as the demand for cashew kernels keep growing in the domestic market. Low processing charges, good support from the government and mechanization were the reasons for the cost of production remaining low in Vietnam<sup>12</sup>.

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda, vii, 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

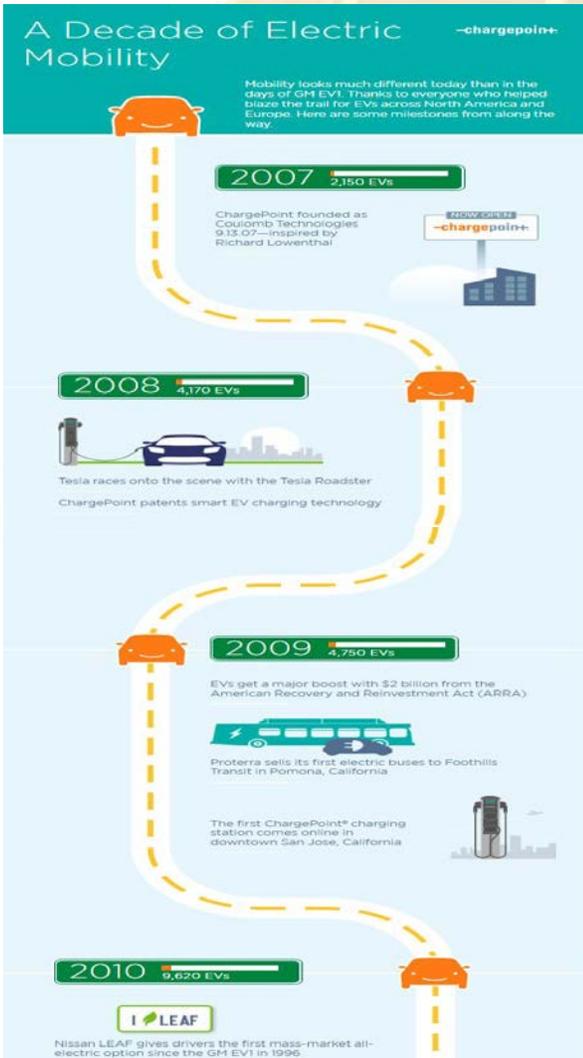
### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>



### ELECTRIC MOBILITY DECADE<sup>13</sup>

In 2007, Zyteck converted an initial 100 Smart ForTwo (Smart-4-2) vehicles to fully electric versions at their production facilities in Fradley, Staffordshire, when there were only a handful of Electric Vehicle (EV) models cruising the streets. These vehicles took part in a market trial by selected British customers as lease vehicles from 2007 to 2009. The Smart-4-2 Electric Drive (ED) sets a new benchmark in the EV sector, the 55kW drivetrain producing a top speed of 120km/h, and 12 kilowatt hours per 100 kilometers giving it a range of 110 kilometers, ideal for short journeys in urban traffic. The Smart-4-2 electric engine and the transmission are located in the rear. The Smart-4-2 ED does not need the gearshift knob, since it only uses one forward and one reverse gear. The success of the UK trials led to the next generation smart 451 ED from October 2009 through to April 2011, producing over 2,000 Smart-4-2 EDs at the assembly plant in Hambach, France<sup>14</sup>. Engineered by Mercedes-Benz, the ED positions the battery in the vehicle's underbody<sup>15</sup>. All across the US, charging stations are popping up, and with apps like Plugshare and Chargepoint® (founded in 2007), it is easy to find them.

**2008** 4,170 EVs Tesla races onto the scene with the Tesla Roadster, ChargePoint patents smart EV charging technology

**2009** 4,750 EVs EVs get a major boost with \$2 billion

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

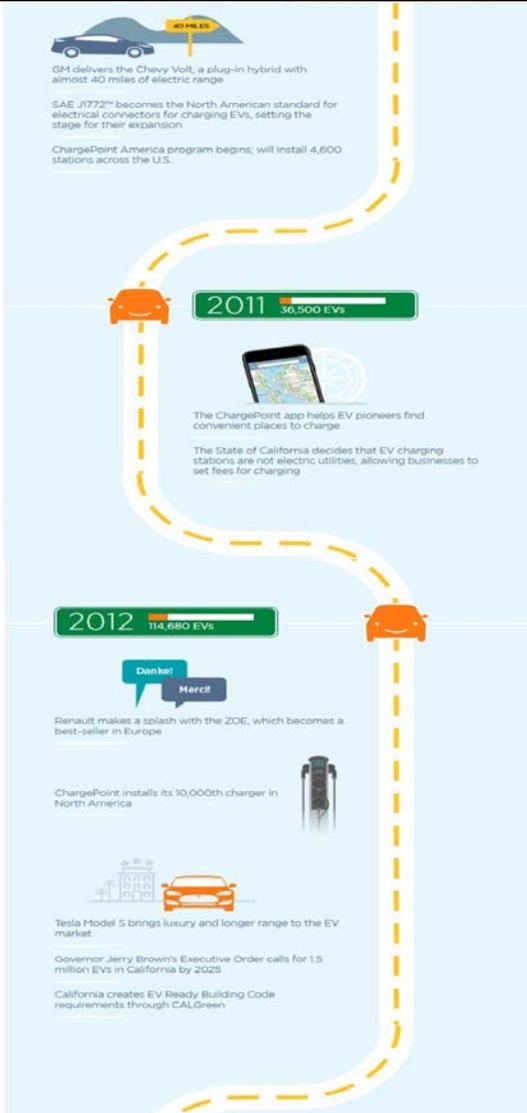
### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>



from the American Recovery and Reinvestment Act (ARRA); Proterra sells its first electric buses to Foothills Transit in Pomona, California; The first ChargePoint® charging station comes online in downtown San Jose, California; The Daimler's new Smart ForTwo Electric Drive

**2010** 9,620 EVs Nissan LEAF gives drivers the first mass-market all-electric option since the GM EV1 in 1996; GM delivers the Chevy Volt, a plug-in hybrid with almost 40 miles of electric range; SAE J1772™ becomes the North American standard for electrical connectors for charging EVs, setting the stage for their expansion; ChargePoint America program begins; will install 4,600 stations across the US

**2011** 36,500EVs The ChargePoint app helps EV pioneers find convenient places to charge; The State of California decides that EV charging stations are not electric utilities, allowing businesses to set fees for charging; [Zytec's The success of the UK trials led to the next generation smart 451 electric drive rolling off the production line from October 2009 through to April 2011. During this time over 2,000 Smart EDs were produced at a dedicated Zytek facility at the Smart Fortwo assembly plant in Hambach, France.](#)

**2012** 114,680EVs Renault makes a splash with the ZOE, which becomes a best-seller in Europe; ChargePoint installs its 10,000th charger in North America; Tesla Model S brings luxury and longer range to the EV market; Governor Jerry Brown's Executive Order calls for 1.5 million EVs in California by 2025; California creates EV Ready Building Code requirements through CALGreen

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

O Sun God, Savitar!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

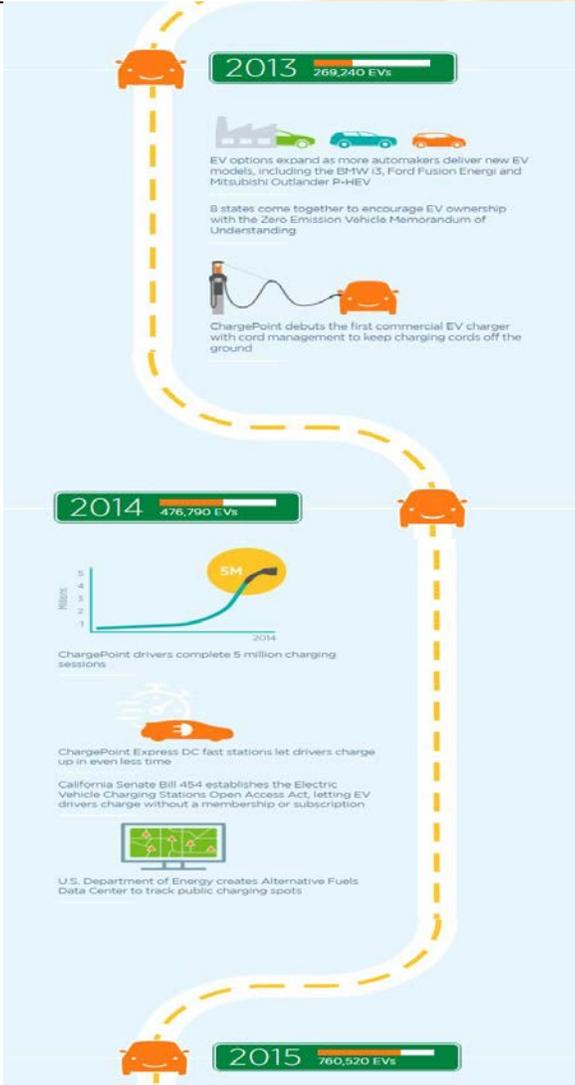
### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarav Vepachedu<sup>1</sup>



**2013** 269,240EVs EV options expand as more automakers deliver new EV models, including [the Smart-ForTwo-2013](#), BMW i3, Ford Fusion Energi, and Mitsubishi Outlander P-HEV; 8 states come together to encourage EV ownership with the Zero Emission Vehicle Memorandum of Understanding; ChargePoint debuts the first commercial EV charger with cord management to keep charging cords off the ground

**2014** 476,790EVs ChargePoint drivers complete 5 million charging sessions; ChargePoint Express DC fast stations let drivers charge up in even less time; California Senate Bill 454 establishes the Electric Vehicle Charging Stations Open Access Act, letting EV drivers charge without a membership or subscription; US Department of Energy creates Alternative Fuels Data Center to track public charging spots

**2015** 760,520EVs ChargePoint makes home charging easy with the ChargePoint Home EV charger; The UN recognizes ChargePoint for tackling climate change at COP21 in Paris; California Senate Bill 1234 makes it easier to get a permit for EV charging at home; Senate Bill 350 requires California utilities to propose transportation electrification programs; Kansas City Power & Light launches Clean Charge Network to put 1,000 charging stations across Kansas and Missouri

**2016** 1,110,730EVs Chevy Bolt EV hits the market as the first affordable, long-range EV; ChargePoint simplifies charging for fleet drivers and condo residents; Columbus, Ohio, wins the U.S. Department of Transportation Smart City Challenge; EV sales in Canada exceed 10,000 units for the first

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda, vii, 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	<u>Management</u>	The Andhra Journal of Industrial News	The Telangana Science Journal	<u>Mana Sanskriti (Our Culture)</u>
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

ChargePoint simplifies charging for fleet drivers and condo residents

Columbus, Ohio, wins the U.S. Department of Transportation Smart City Challenge

EV sales in Canada exceed 10,000 units for the first time

**2017** 1,362,454 EVs

ChargePoint Express Plus gets ready for the next 10 years of EV charging with speed and scalability

EVs have a banner year with the release of the Chrysler Pacifica, Honda Clarity, Hyundai Ioniq, Toyota Prius Prime, Tesla Model 3 and other new models

SCE, SDG&E and PG&E all create successful EVSE incentive programs

ChargePoint receives the first ENERGY STAR® certification for EV charging

Cummins, Tesla and Daimler up the ante with all-electric semi trucks

Volkswagen settlement designates \$2.7 billion for state clean transportation projects

ChargePoint lets drivers charge by simply tapping their phone on a station

**The future is bright**

time

**2017** 1,362,454 EVs the Chrysler Pacifica, Honda Clarity, Hyundai Ioniq, Toyota Prius Prime, Tesla Model 3, SCE, SDG&E and PG&E; ChargePoint receives the first ENERGY STAR® certification for EV charging; Cummins, Tesla and Daimler up the ante with all-electric semitrucks; Volkswagen settlement designates \$2.7 billion for state clean transportation projects; ChargePoint lets drivers charge by simply tapping their phone on a station

#### 2018 Smart ForTwo Electric Drive

**2019** All new Volvo models to be electrified  
Kiruba Haran, an electrical engineering professor at the University of Illinois Urbana-Champaign, co-founded Zunum Aero, a Kirkland, Washington-based startup that's aiming to get electric airplanes flying nationwide by the early **2020s**, with other cofounders Ashish and Matt Knapp. POETS; Jaguar Land Rover commits to electrifying all new models

**2022** Hyundai to have 8 EV models available, Mitsubishi and Nissan-Renault to launch 12 new EVs, Daimler commits to 10 EV models

**2023** GM delivers 20 EV models

**2025** Norway will sell only zero-emission vehicles, BMW brings out 12 all-electric vehicles

**2030** Netherlands and India ban petrol and diesel vehicle sales, Honda aims for two-thirds of vehicles to be electric

**2032** Scotland phases out sales of petrol/gasoline vehicles

**2040** France and UK prohibit petrol/gasoline vehicle sales

You can be part of this. If you haven't jumped on the EV bandwagon yet, it is not too late to hop on it.



Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda, vii, 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

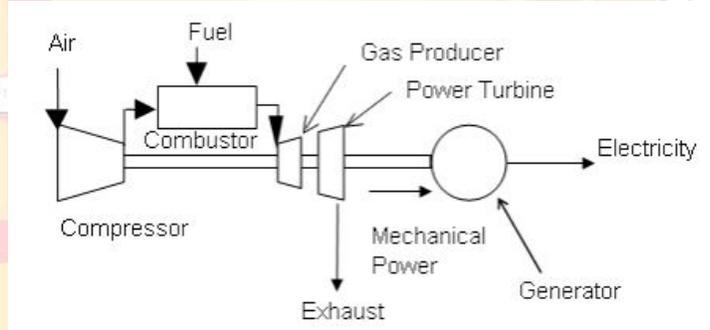
Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

### COMBINED HEAT AND POWER (CHP)<sup>16</sup>

Emissions	System				
	1	2	3	4	5
Nominal Capacity (kW)	100	633	1121	3326	9341
Electrical Efficiency (% HHV)	27.0%	34.5%	36.8%	40.4%	41.6
Engine Combustion	Rich	Rich	Lean	Lean	Lean
<b>Precatalyst Emissions</b>					
NO <sub>x</sub> (lb/MWh)		1.77	1.77	1.77	2.64 <sup>33</sup>
CO (lb/MWh)		8.12	8.12	8.12	4.18
VOC (lb/MWh)		0.97	0.97	0.97	1.39
<b>Post Catalyst Emissions</b>					
NO <sub>x</sub> (lb/MWh)	0.070	0.07	0.07	0.07	.07
CO (lb/MWh)	0.200	0.20	0.20	0.20	.20
VOC (lb/MWh)	0.1	0.10	0.10	0.10	.10
CO <sub>2</sub> Gross (lb/MWh)	1,479	1,158	1,084	989	988
CO <sub>2</sub> Net (lb/MWh)	499	516	520	520	540

Combined heat and power (CHP) is an efficient and clean approach to generating electric power and useful thermal energy from a single fuel source. CHP places power production at or near the site of its use so that the heat released from power production can be used to meet the user's thermal requirements while the power generated meets all or a portion of the site electricity needs. Applications with steady demand for electricity and thermal energy are potentially good economic targets for CHP deployment.

Industrial applications particularly in industries with continuous processing and high steam requirements are very economic and represent a large share of existing CHP capacity today. Commercial applications such as hospitals, nursing homes, laundries, and hotels with large hot water needs are well suited for CHP. Institutional applications such as colleges and schools, prisons, and residential and recreational facilities are also excellent prospects for CHP.



On November 28, 2017, the US Department of Energy (DOE) announced about \$ 25 million to further the installation of cost-effective, highly efficient combined heat and power (CHP) technologies. The selected organizations will become regional CHP Technical Assistance Partnerships (CHP TAPs) that will assist in the development of strategies to increase resilience to natural disasters, improve grids and electric delivery reliability, maximize CHP exposure to potential end-users and key stakeholders, and locally validate best practices in CHP technology policies and installation. The new CHP TAPs include:

- Center for Sustainable Energy – San Diego, CA
- Houston Advanced Research Center – The Woodlands, TX

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

O Sun God, Savitr!  
 Thou dazzling fount of life-persuasive light!  
 Sublimest mystery speeding from afar!  
 Swift became that burst too potent on the sight!  
 This radiant type of strength and youth!  
 Glowing eternally!



శ్రీ వేపచేదు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
 Shining forth he rises from the lap of the dawn!  
 Praised by singers, my God Savitar!  
 Stopped forth and never missed his place!  
 He steps forth the splendor of the sky the wide!  
 Seeing, far-shining, the shining wanderer!  
 - Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
 All luminaries get illuminated by His Illumination!  
 The whole Universe is enlightened by His light!  
 - Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

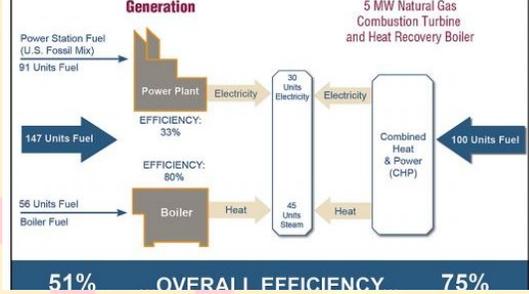
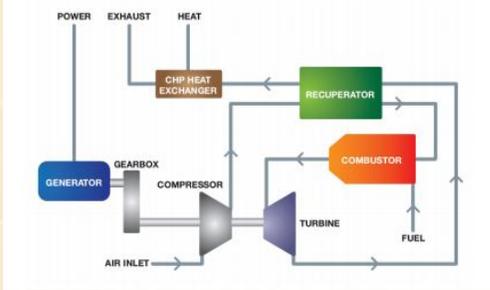
Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేదు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarav Vepachedu<sup>1</sup>

North Carolina State University – Raleigh, NC  
 Pace University – New York, NY  
 Pennsylvania State University – University Park, PA  
 The University of Illinois at Chicago – Chicago, IL  
 The University of Maine – Orono, ME  
 Washington State University – Pullman, WA



Issue 163 5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era  
 స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,  
 మార్గశిర మాసము/MARGASIRA Month  
 Publication Date DECEMBER 1, 2017

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేదు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

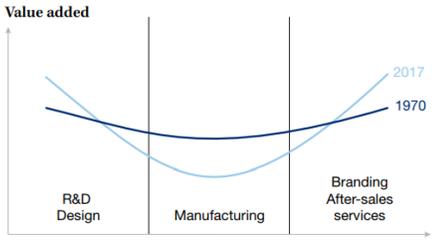
ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేదు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

### THE EMERGENCE OF INTANGIBLE CAPITAL (IC)

#### Production in the 21<sup>st</sup> century – a growing smile



Technological innovations and globalization have changed the global production with novel methods of converting raw materials into parts and components, assembling final products, and delivering them to the end consumer involving supply chains - the so-called global value chains - that span ever expanding and increasing number of economies across the globe, making a large range of products, comprising both military and civilian products, more affordable thereby stimulating economic growth and creating opportunities for economic development and the alleviation of poverty in certain parts of the globe<sup>17</sup> along with the destruction of infrastructure, life, and economy in other parts with the

sophisticated war machine of the military industrial complex<sup>18</sup>. The growth of global value chains is a key distinguishing feature of the so-called second wave of globalization that set in some time in the second half of the 20th century.

Today, the unique and valuable part of a business depends on the methods of use of tangibles, performing work, and innovation, which is the INTANGIBLE CAPITAL<sup>19</sup> (IC) (aka Intellectual Capital), a concept developed with the rise of the importance of intangibles at the juncture of the end of the industrial economy and the rise of the new economy based on information technology and the internet influenced by knowledge, connections, and collaboration as the key assets driving growth and performance in global value chains.

In 2015, at the World Intellectual Property Organization, a panel of top economists concluded that the shift towards an IC based knowledge economy brings a promise of increased economic growth in the long term, along with the susceptibility to repercussions on growth caused by a financial crisis as economies become increasingly intangible<sup>20</sup> and global.

Investment in the IC is a key economic growth factor and better understanding how the IC is generated and exploited in a globalized marketplace may refine the investment policy to favor such investment. The IC comprises four knowledge intangibles **1) Human Capital** - the talent, competencies, and experience of all employees and managers; **2) Relationship Capital** - key external relationships that drive your business, with customers, suppliers, partners, outsourcing and financing partners, etc.; **3) Structural Capital**- recorded knowledge, processes, software, and intellectual property which allows for the creation of wealth through the

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stepped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

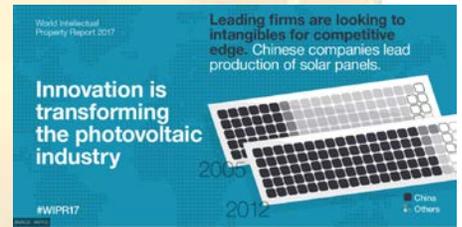
transformation of the work of Human Capital; and **4) Strategic Capital** - the purpose and knowledge of the market and the business model to connect with market needs<sup>21</sup>.

The precise nature of the impact of the IC on the global value chains differs widely across industries. The IC share is high for food, computer, electronic, and optical products in relation to the share of tangibles and is more than double the tangibles share for industries such as pharmaceutical, chemical and petroleum products. In terms of absolute returns, food products, motor vehicles, and textiles account for close to 50 percent of the total income generated by the IC in the 19 manufacturing global value chains<sup>22</sup>. Overall, income from intangibles increased by 75% from 2000 to 2014 in real terms, amounting to \$5.9 trillion in 2014, twice as much as tangible capital, such as buildings and machinery, contributed to the total value of manufactured goods. According to Director General of WIPO, IC will increasingly determine the fate and fortune of firms in today's global value chains. It is behind the look, feel, functionality, and general appeal of the products we buy and it determines success in the marketplace. Intellectual property (IP) is the means by which companies secure the competitive advantage flowing from their IC<sup>23</sup>.



WIPO Director General Francis Gurry and Chief Economist Carsten Fink discuss with reporters the "World Intellectual Property Report 2017: Intangible Capital in Global Value Chains" (WIPR 2017) on November 20, 2017, in Geneva, Switzerland.

Solar panels have moved from highly specialized products in 2008 to low-cost commodities as prices fell by an estimated 80 percent by 2015 with the reduction of production costs by investing in more powerful production equipment, realizing efficiencies through complementary process innovations and achieving large-scale production. Chinese manufacturers have progressively increased their market share, putting many traditional PV manufacturers in the US, Europe and elsewhere, as well as some firms within China, under competitive pressure, resulting in bankruptcies and acquisitions. The WIPR 2017 shows that overall patent filings



Issue 163 5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era  
స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,  
మార్గశిర మాసము/MARGASIRA Month  
Publication Date DECEMBER 1, 2017

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

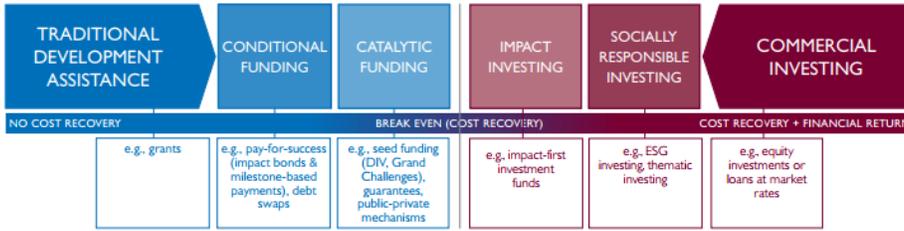
### IP and Industry News

Home	The Foundation	<u>Management</u>	The Andhra Journal of Industrial News	The Telangana Science Journal	<u>Mana Sanskriti (Our Culture)</u>
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>



in the photovoltaic sector have declined since 2011 in the US, Europe, and Japan while patenting has continued to grow in this sector in China<sup>24</sup>.

While, the United States Agency for International

Development (USAID)'s Center for Accelerating Innovation and Impact (CII) takes a business-minded approach to fast-tracking the development, introduction, and scale-up of health interventions that address the world's most important health challenges<sup>25</sup>. The CII invests seed capital in the most promising ideas and novel approaches, using forward-looking business practices to cut the time it takes to transform discoveries in the lab to impact on the ground. Given the current financing trends, USAID and its partners intend to benefit from redoubling efforts to apply these non-traditional approaches to finance global health moving forward.

In the donor community, the last two decades have been called the "golden age" of global health financing. Institutional and private philanthropic donor funding grew rapidly during this time due to the rise of private foundations such as the Bill and Melinda Gates Foundation (BMGF). Funding from national governments channeled through bilateral/multilateral agencies and development banks like the World Bank grew significantly during this period as well.

Issue 163 5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era  
స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,  
మార్గశిర మాసము/MARGASIRA Month  
Publication Date DECEMBER 1, 2017

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

Disclaimer<sup>26</sup>: Every effort has been made to verify the accuracy of items in the Quarterly IP Law Update. However, readers are urged to check independently on specific matters from their corresponding foreign agents. For further information or support, please contact the editor<sup>27</sup>.

### REFERENCES AND NOTES<sup>28</sup>

#### REFERENCES AND NOTES

- 1 The Scientist's Top 10 Innovations of 2017 <https://www.linkedin.com/pulse/scientists-top-10-innovations-2017-rao-vepachedu-jd-phd-llm/>
- 2 PIPE DREAM IN CHICAGO <https://www.linkedin.com/pulse/pipe-dream-chicago-rao-vepachedu-jd-phd-llm/>; In the late 1800s, the hallucinatory dreams that people had when they smoked opium (usually with a pipe) were called Pipe Dreams. <https://www.pbs.org/wgbh/pages/frontline/shows/heroin/etc/history.html>  
Let us hope it comes true- some times even Pipe Dreams come true, e.g., My pipe dream came true!  
<https://www.usatoday.com/story/news/nation-now/2017/08/24/massachusetts-lays-claim-758-7-million-powerball/596428001/>
- 3 New train uses magnetic levitation to achieve top speeds <http://www.independent.co.uk/life-style/gadgets-and-tech/news/japanese-311mph-maglev-bullet-train-tested-successfully-8645369.html>  
The Tube of the Future London Train <https://www.youtube.com/watch?v=T2O1sOrED4w>
- 4 THE OFFICIAL SPACEX HYPERLOOP POD COMPETITION <http://www.spacex.com/hyperloop>; 2018 SpaceX Hyperloop Pod Competition [http://www.spacex.com/sites/spacex/files/2018\\_hyperloop\\_competition\\_rules.pdf](http://www.spacex.com/sites/spacex/files/2018_hyperloop_competition_rules.pdf); Hyperloop One Finds U.S. Clamoring For Vacuum-Tube Trains. Next Stop: Make Them Real <https://www.forbes.com/sites/alanohnsman/2017/04/06/hyperloop-one-finds-u-s-clamoring-for-vacuum-tube-trains-next-stop-make-them-real/#25c22c0c78b3>; Elon Musk claims approval for 30-minute Hyperloop between New York and Washington DC <http://www.telegraph.co.uk/technology/2017/07/21/elon-musk-claims-approval-30-minute-hyperloop-new-york-washington/>
- 5 What is Hyperloop? <http://www.pocket-lint.com/news/132405-what-is-hyperloop-the-700mph-subsonic-train-explained>; The design behind the Hyperloop dates back long before Elon Musk — take a look at its evolution <http://www.businessinsider.com/history-hyperloop-pneumatic-tubes-as-transportation-2017-8>; 4 things you don't know about the Hyperloop <http://www.chicagotribune.com/bluesky/hub/ct-nc-4-things-you-dont-know-about-hyperloop-bsi-hub-20160316-story.html>
- 6 Elon Musk says his Boring Company will bid to build a transit 'loop' for Chicago <https://www.geekwire.com/2017/elon-musk-says-boring-company-will-bid-build-transit-loop-chicago/>; City seeking parties to fund, build, operate O'Hare express train <https://chicago.suntimes.com/news/city-seeking-parties-to-fund-build-operate-ohare-express-service/>
- 7 Hyperloop One, the Los Angeles startup that's trying to turn Elon Musk's vacuum-tube train concept into a high-speed reality, is finding significant support across the U.S. to have the futuristic transit system connecting major cities. High-speed Hyperloop project ready for key test in Nevada: <http://mobile.reuters.com/article/amp/idUSKBN19Y2XZ>

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

<sup>8</sup> Virgin Hyperloop One Finds U.S. Clamoring For Vacuum-Tube Trains. Next Stop: Make Them Real <https://www.forbes.com/sites/alanohnsman/2017/04/06/hyperloop-one-finds-u-s-clamoring-for-vacuum-tube-trains-next-stop-make-them-real/#25c22c0c78b3>

The Hyperloop One System <https://www.youtube.com/watch?v=fze5spdN3nU>; A real hyperloop is almost here — and it's not what Elon Musk envisioned <https://www.theverge.com/2017/8/2/16084154/hyperloop-one-test-size-speed-loop-elon-musk>; Hyperloop One Is a Step Closer to Reinventing Transportation As We Know It <http://fortune.com/2017/07/13/hyperloop-one-test-nevada/>

<sup>9</sup> The Hyperloop is getting some Chinese competition <https://qz.com/1066455/china-aims-to-build-a-supersonic-flying-train-that-would-put-elon-musks-hyperloop-to-shame/>

<sup>10</sup> The Fabric of Our Lives: The brutal history of cotton debunks many of the most popular myths about capitalism [http://www.slate.com/articles/arts/books/2014/12/empire\\_of\\_cotton\\_a\\_global\\_history\\_by\\_sven\\_beckert\\_is\\_a\\_great\\_history\\_of.html](http://www.slate.com/articles/arts/books/2014/12/empire_of_cotton_a_global_history_by_sven_beckert_is_a_great_history_of.html): "Slavery was not a hidebound institution that capitalism destroyed, but an integral one that made capitalism possible" - Europe's vast appropriation of Native American lands and the largest forced migration of enslaved Africans in world history. Cotton propelled the factory's emergence, created after British inventors found a way to spin slave-grown cotton into yarn more swiftly. By the early 19th century, Britain, and soon all of Europe, had robust cotton manufacturing industries. On the eve of the Civil War, the US supplied Great Britain with 77 percent of its raw cotton, 90 percent of France's, and 92 percent of Russia's.

During the American Civil War, the British Indian Colonial Imperial government carved up the land into taxable plots that essentially forced Indians to grow the only commodity with any financial worth: cotton. In no time, India's countryside was sucked into a global cotton economy, with devastating consequences for India's population. Indians suffered repeated famines when the price of cotton plummeted on global exchange markets. As many as 10 million Indian cotton farmers died from famines in the 1870s, and another 19 million in the 1890s — a crime against humanity.

<sup>11</sup> Trump dumps Paris climate deal <http://www.sciencemag.org/news/2017/06/trump-dumps-paris-climate-deal-reaction>

<sup>12</sup> India's Manual Labor is No Match for Machines <https://www.linkedin.com/pulse/indias-manual-labor-match-machines-rao-vepachedu-jd-phd-llm/>

Vietnam kernels pose threat <http://www.thehindu.com/todays-paper/tp-national/tp-kerala/vietnam-kernels-pose-threat/article18720662.ece>

India's 'Cashew Capital' Loses Ground in Global Race <http://www.wsj.com/video/india-cashew-capital-loses-ground-in-global-race/F5EDD25A-00E2-430B-8C50-4E883029D9C4.html> Once the world's cashew capital, Kollam in Free India, has faltered in the face of competition from Vietnam as the city's labor-intensive industry has failed to adopt more-efficient technology.

<sup>13</sup> Electric Mobility Decade <https://www.linkedin.com/pulse/electric-mobility-decade-rao-vepachedu-jd-phd-llm/>

<sup>14</sup> Smart Electric Drive <http://www.zytekautomotive.co.uk/media/case-studies/case-study-1/>; [https://www.smartusa.com/resources/video/EV-Homepage\\_Video1\\_Intro.mp4](https://www.smartusa.com/resources/video/EV-Homepage_Video1_Intro.mp4); Introducing the 2018

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబీ నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanisad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेडु | Dr. Sreenivasarav Vepachedu<sup>1</sup>

smart fortwo Electric Drive

[https://www.smartusa.com/?gclid=CjwKCAiAu4nRBRBKEiwANms5Wz851jEqICFUP2y9ONyMg5MTO2Zxd9X3MBPHe4XYFn--RjsZMNRoCehIQAvD\\_BwE](https://www.smartusa.com/?gclid=CjwKCAiAu4nRBRBKEiwANms5Wz851jEqICFUP2y9ONyMg5MTO2Zxd9X3MBPHe4XYFn--RjsZMNRoCehIQAvD_BwE)

<sup>15</sup> Electric Drive FAQ <https://www.smartusa.com/electric-drive-faq>; <https://www.smartusa.com/models/electric-passion-coupe#gallery>

<sup>16</sup> \$ 25 M FOR COMBINED HEAT AND POWER (CHP) <https://www.linkedin.com/pulse/25-m-combined-heat-power-chp-rao-vepachedu-jd-phd-llm/>; Catalog of CHP Technologies [https://www.epa.gov/sites/production/files/2015-07/documents/catalog\\_of\\_chp\\_technologies.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/catalog_of_chp_technologies.pdf)

<sup>17</sup> Intangible Capital in Global Value Chains, World Intellectual Property Report 2017 ([http://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_944\\_2017.pdf?utm\\_source=WIPO+Newsletters&utm\\_campaign=d46973902a-WIPR\\_2017\\_11\\_20&utm\\_medium=email&utm\\_term=0\\_bcb3de19b4-d46973902a-256634869#page=28](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2017.pdf?utm_source=WIPO+Newsletters&utm_campaign=d46973902a-WIPR_2017_11_20&utm_medium=email&utm_term=0_bcb3de19b4-d46973902a-256634869#page=28))

<sup>18</sup> Jawad ed., The Middle East in the New World Order, Springer, July 27, 201; Closmann, War and the Environment, Texas A&M University Press, September 14, 2009; Singleton et al., Economic Casualties, Cato Institute, Mar 1, 1999; Musallam, The Iraqi Invasion of Kuwait, British Academic Press, May 15, 1996; Whittaker ed., The Terrorism Reader, Psychology Press, 2003; Goodman et al., Strange Love, Rowman & Littlefield, 2002; Pulsipher et al., World Regional Geography Concepts, Macmillan Higher Education, Dec 1, 2014; Miller, Confessions of a Recovering Realist, Author House, Oct 7, 2004; JPRS Report: Near East & South Asia, Issue 91016, Foreign Broadcast Information Service, 1991

#### ISRAEL

Schiff Discusses Iraq's Regional Military Role  
TA0131034A Tel Aviv HA'ARETZ in Hebrew  
1 March 91 p 1

[Article by Ze'ev Schiff]

[Text] About a third of Saddam Husayn's army has survived in its original framework, as well as about half of its air force, but the decisive thing is that this is a defeated army which, for the majority, was stricken with demoralization in the last stage of the war.

It will take a long time for [this army] to recover until it can constitute a threat to Iraq's neighbors. The danger today is not posed from the Iraqi war machine, but

<sup>19</sup> Intangible Capital (an open source publication): In 1998, Public Knowledge Project (PKP) was founded by John Willinsky in the Faculty of Education at UBC, with Pacific Press Professorship endowment, dedicated to improving the scholarly and public quality of research. Intangible Capital is a PKP journal using Open Journal Systems 2.4.8.0, which is open source journal

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitar!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. iii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarav Vepachedu<sup>1</sup>

management and publishing software developed, supported, and freely distributed by the Public Knowledge Project under the GNU General Public License. The aim of Intangible Capital is to publish theoretical and empirical articles that contribute to contrast, extend and build theories that contribute to advance our understanding of phenomena related with management, and the management of intangibles, in organizations, from the perspectives of strategic management, human resource management, psychology, education, IT, supply chain management and accounting. Unlike other journals, whose business model is based in making readers pay and therefore their contents are closed to the public, Intangible Capital is published on an open access basis, which allows authors reach a wider audience and foster the international and social impact of their contributions. To make this open access policy sustainable, Intangible Capital charges fees for article layout setting and publication in open access. The submission process of the original and its double-blind review have no cost to the authors or institutions that fund the research with the publication fee of 295 €/article.

<sup>20</sup> World Intellectual Property Report 2015 – Breakthrough Innovation and Economic Growth

[http://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_944\\_2015.pdf](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2015.pdf)

<sup>21</sup> Adams, What is Intangible Capital? <http://www.smarter-companies.com/profiles/blogs/what-is-intangible-capital-part-one-of-a-series>

Human Capital:

Adams, What is human capital? <http://www.smarter-companies.com/profiles/blogs/what-is-human-capital>

Kahng, WHO OWNS HUMAN CAPITAL? <http://www.law.indiana.edu/instruction/tax-policy/assets/kahng-human-capital.pdf>

Blair, An Economic Perspective on the Notion of 'Human Capital,' The Oxford Handbook of Human Capital (Jan 2011)

<http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199532162.001.0001/oxfordhb-9780199532162-e-2>

Turunen, The Emergence of Intangible Capital, JYVÄSKYLÄ STUDIES IN humanities 285, JYVÄSKYLÄ 2016

[https://jyx.jyu.fi/dspace/bitstream/handle/123456789/49288/978-951-39-6596-9\\_vaitos\\_22042016.pdf?sequence=3](https://jyx.jyu.fi/dspace/bitstream/handle/123456789/49288/978-951-39-6596-9_vaitos_22042016.pdf?sequence=3)

Benhabib et al., The role of human capital in economic development evidence from aggregate cross-country data, Journal of Monetary Economics, Volume 34, Issue 2, October 1994, Pages 143-173

Becker, Human Capital Revisited, January 1994: <http://www.nber.org/chapters/c11229.pdf>

Becker, The Age of Human Capital, [http://media.hoover.org/sites/default/files/documents/0817928928\\_3.pdf](http://media.hoover.org/sites/default/files/documents/0817928928_3.pdf)

Schultz, Investment in Human Capital, The American Economic Review, Vol. 51, No. 1, pp. 1-17 (March 1961):

<http://www.jstor.org/stable/1818907>

Coleman, Chapter 2 – Social Capital in the Creation of Human Capital, Knowledge and Social Capital

Foundations and Applications, Pages 17–41 (2000) <https://doi.org/10.1016/B978-0-7506-7222-1.50005-2>

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేదు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanisad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేదు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

Heckman, Policies to foster human capital, Research in Economics, Volume 54, Issue 1, Pages 3-56 (March 2000)

<https://doi.org/10.1006/reec.1999.0225>

Cornfield, Chances of Layoff in a Corporation: A Case Study, Administrative Science Quarterly Vol. 28, No. 4, pp. 503-520 (December 1983)

Big Money As Private Immigrant Jails Boom <https://www.wbez.org/shows/npr/big-money-as-private-immigrant-jails-boom/ea8d4564-87ad-434c-9f29-7d45c643eb90>: ICE spends more than \$2 billion a year on immigrant detention through private jails. CE and the US Marshals Service pay GEO \$32 million a year to house, feed, and provide medical care for a thousand detainees.

From Africa to Europe: Africans seeking new life make epic trek through Balkans' back door

[http://psjd.icm.edu.pl/psjd/element/bwmeta1.element.psjd-62dfe668-7702-4854-984d-eaf6459de44d/c/WSN\\_10\\_2015\\_44-55.pdf](http://psjd.icm.edu.pl/psjd/element/bwmeta1.element.psjd-62dfe668-7702-4854-984d-eaf6459de44d/c/WSN_10_2015_44-55.pdf)

Fleeing wars, dictatorships, poverty. Willing to risk their own lives - often it is paid for a dangerous path, during which they are at the mercy of smugglers. The Mediterranean Sea has become a graveyard for thousands of immigrants from Africa and Asia, dreaming of entering into Europe. But victims of this wandering is a lot more - refugees are dying from exhaustion, raids, auctions, and sale to the brothels and slave labor.

Out of Africa: The human trade between Libya and Lampedusa <https://link.springer.com/article/10.1007/s12117-007-9020-y>

The Mediatization of Violence: A Model for Utilizing Public Discourse and Networking to Counter Global Terrorism

[https://link.springer.com/chapter/10.1007/978-3-319-56215-5\\_9](https://link.springer.com/chapter/10.1007/978-3-319-56215-5_9)

UNHCR, Global Trends, Forced Displacement in 2015, p.8:

<http://www.unhcr.org/uk/statistics/unhcrstats/576408cd7/unhcr-global-trends-2015.html>

Daily, millions of refugees and migrants fleeing war and persecution in countries like Syria, South Sudan, Myanmar and Iraq suffer intolerable misery and human rights violations.

TWO-LANE BLACKTOP: REFUGEES & TORTURE <http://revistaselectronicas.ujaen.es/index.php/TAHRJ/article/view/3461/2799>

In general terms, the refugees who are arriving to Europe at the moment, come from territories with a high level of conflict and violence. In addition to the Syrian refugees, there are a significant number of Afghans and Iraqis who also try to reach Europe across the Mediterranean. The hell of torture is particularly aberrant and scandalous in another country where refugees come from, Eritrea, where, in addition, young people are forced into military service similar to slavery....Amnesty International has described many human rights violations (including torture and abuses) in transit; recently many refugees and migrants in Italy in 2016 have described their journeys, facing abuse at every stage from their arrival in Libya until they reached the Mediterranean coast.

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేదు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. iii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేదు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarao Vepachedu<sup>1</sup>

#### Relationship Capital:

Adams, What is relationship capital? <http://www.smarter-companies.com/profiles/blogs/what-is-relationship-capital>

Migration, relationship capital and international travel: theory and evidence, Journal of Economic Geography, Volume 10, Issue 3, Pages 361–387 (1 May 2010) <https://doi.org/10.1093/jeg/lbp044>

Intellectual capital in the hotel industry: A case study from Slovenia, International Journal of Hospitality Management, Volume 26, Issue 1, Pages 188-199 (March 2007) <http://www.sciencedirect.com/science/article/pii/S0278431905001027>

Positive psychological capital: Measurement and relationship with performance and satisfaction, University of Nebraska – Lincoln, DigitalCommons@University of Nebraska – Lincoln, Leadership Institute Faculty Publications Leadership Institute, 2007 <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1010&context=leadershipfacpub>

Social Capital and Democracy: An Interdependent Relationship, American Sociological Review

Vol. 67, No. 2, pp. 254-277 (April, 2002) [http://www.jstor.org/stable/3088895?seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/3088895?seq=1#page_scan_tab_contents)

Success through commitment and trust: the soft side of strategic alliance management, Journal of World Business Volume 35, Issue 3, Pages 223-240 (3rd Quarter 2000)

<http://www.sciencedirect.com/science/article/pii/S1090951600000365>

Measuring intangible corporate assets: Linking business strategy with intellectual capital, Journal of Intellectual Capital, Vol. 1 Issue: 1, pp.68-84, <https://doi.org/10.1108/14691930010371636>

The Influence of Complementarity, Compatibility, and Relationship Capital on Alliance Performance, Journal of the Academy of Marketing Science, Vol 29, Issue 4 (2001) <http://journals.sagepub.com/doi/abs/10.1177/03079450094216>

Extranet Use and Building Relationship Capital in Interfirm Distribution Networks: The Role of Extranet Capability, Journal of Retailing, Volume 87, Issue 1, Pages 59-74 (March 2011)

<http://www.sciencedirect.com/science/article/pii/S002243591000062X>

#### Structural Capital:

Adams, What is structural capital? <http://www.smarter-companies.com/profiles/blogs/what-is-structural-capital>

Measuring and reporting structural capital: Lessons from European learning firms, JOURNAL OF INTELLECTUAL CAPITAL, VOLUME 5, ISSUE 4 (2004) <https://doi.org/10.1108/14691930410567059> The role of structural capital on competitive intelligence, Industrial Management & Data Systems, Vol. 109, Issue: 2, pp.262-280 (2009)

<https://doi.org/10.1108/02635570910930136>

#### Strategic Capital:

Adams, What is strategic capital? <http://www.smarter-companies.com/profiles/blogs/what-is-strategic-capital>

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanishad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarav Vepachedu<sup>1</sup>

Knowledge sharing and strategic capital: The importance and identification of opinion leaders, The Learning Organization, Vol. 12, Issue: 6, pp.563-574 (2005) <https://doi.org/10.1108/09696470510626766>

Throughout the history of American capitalism, workers have been laid off from their jobs during recessionary periods of the business cycle and during times of rapid technological change (Lebergott, 1964; Reznick, 1968; Garraty, 1978). The periodic disengagement of workers from the work role and the socioeconomic, political, and psychological consequences of this for the worker have long concerned observers of capitalist, industrial society. Marx (1977) foresaw a growing industrial reserve army, expelled from employment as a result of the change in the organic composition of capital, whose deteriorating material conditions would prompt them to revolt and to establish a new political economic system. For Durkheim (1951), anomic suicide partly resulted from financial crises, "disturbances of the collective order," which weakened society's capacity to regulate the individual passion for material self-enrichment. The Great Depression of the 1930s resulted in much sociological research on the human consequences of layoffs. Layoffs demoralized some families and radicalized others, and many families who suffered a loss of status and income became isolated from their communities (Jahoda, Lazarsfeld, and Ziesel, 1933; Bakke, 1940; Komarovskiy, 1940). Researchers have discovered similar human consequences in the high layoff rates during recent recessions in the United States (Tiffany, Cowan, and Tiffany, 1970; Schlozman and Verba, 1979; Leventman, 1981).

Sociological research has focused mainly on the consequences of layoffs and unemployment, and little effort has been directed to the effects of the structure of corporations on the unequal chances of layoff among employees (Sinfield, 1976; Schervish, 1981; Cornfield, 1981, 1982). The structure of organizations and internal labor markets has been shown to affect various socioeconomic life chances, such as income inequality, careers, and promotion chances (Spilerman, 1977; Stolzenberg, 1978; Edwards, 1979; Kalleberg and Sørensen, 1979; Rosenbaum, 1979; Baron and Bielby, 1980), especially because division of labor and unionization constrain managerial, labor-allocation decision making. Economic theories explain unequal chances of layoff by individual traits that are valued by the employer (e.g., training) and by the design of personnel procedures (e.g., seniority-based layoff practices). The purpose of this paper is to develop a sociological explanation of unequal chances of layoff that incorporates structural, procedural, and individual determinants. Hypotheses are tested with an organizational case study of layoffs at an American corporation.

503/Administrative Science Quarterly, 28 (1983): 503-520

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥

O Sun God, Savitr!  
Thou dazzling fount of life-persuasive light!  
Sublimest mystery speeding from afar!  
Swift became that burst too potent on the sight!  
This radiant type of strength and youth!  
Glowing eternally!



శ్రీ వేపచేడు విద్యా పీఠము

May the golden-eyed Savitar come hither!  
Shining forth he rises from the lap of the dawn!  
Praised by singers, my God Savitar!  
Stopped forth and never missed his place!  
He steps forth the splendor of the sky the wide!  
Seeing, far-shining, the shining wanderer!  
- Rig Veda. vii. 65

# VEPACHEDU EDUCATIONAL FOUNDATION

We alone shine!  
All luminaries get illuminated by His Illumination!  
The whole Universe is enlightened by His light!  
- Kathopanisad

## The Andhra Journal of Industrial News

### IP and Industry News

Home	The Foundation	Management	The Andhra Journal of Industrial News	The Telangana Science Journal	Mana Sanskriti (Our Culture)
Vegetarian Links	Disclaimer	Solicitation	Contact	VPC	Vedah-Net

ॐ भूर्भुवः स्वः तत्सवितुर्वरेण्यं भर्गो देवस्य धीमहि धियो यो नः प्रचोदयात्॥

Issue 163

Chief Editor: డాక్టర్ శ్రీనివాసరావు వేపచేడు | डॉक्टर श्रीनिवासरावु वेपचेदु | Dr. Sreenivasarav Vepachedu<sup>1</sup>

<sup>22</sup> Chen et al. Measuring the Income to Intangibles in Goods Production: A Global Value Chain Approach. Economic Research Working Paper No. 36. Geneva: WIPO (Table 1: Income shares by manufacturing product group, 2014; WIPO Report 2017) [http://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_944\\_2017.pdf?utm\\_source=WIPO+Newsletters&utm\\_campaign=d46973902a-WIPR\\_2017\\_11\\_20&utm\\_medium=email&utm\\_term=0\\_bcb3de19b4-d46973902a-256634869#page=28](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2017.pdf?utm_source=WIPO+Newsletters&utm_campaign=d46973902a-WIPR_2017_11_20&utm_medium=email&utm_term=0_bcb3de19b4-d46973902a-256634869#page=28)

<sup>23</sup> New WIPO Study Gives First-Ever Figures on Value of "Intangible Capital" in Manufactured Goods [http://www.wipo.int/pressroom/en/articles/2017/article\\_0012.html](http://www.wipo.int/pressroom/en/articles/2017/article_0012.html)  
<https://www.youtube.com/watch?v=RNMs8AF0GMI&feature=youtu.be>

Branding and other intangibles account for 30 percent of product value – UN report <http://www.un.org/apps/news/story.asp?NewsID=58128#.WhTG5VWnFhE>

<sup>24</sup> Solar Panels: Technological Innovation Prompts Profound Shifts [http://www.wipo.int/pressroom/en/articles/2017/article\\_0012.html#solar](http://www.wipo.int/pressroom/en/articles/2017/article_0012.html#solar)

<sup>25</sup> USAID, Investing for Impact <https://www.usaid.gov/sites/default/files/documents/1864/investing-for-impact-aug2017-508.pdf>; Investing for Impact provides a high-level summary of trends in global health financing over the past two decades, identifies the implications of these trends and highlights opportunities in the new landscape of global health financing, and features examples of how USAID is applying non-traditional approaches to financing global health and includes supplementary information on eight illustrative financing tools being utilized across the USAID.

<sup>26</sup> Disclaimer: Although every effort has been made to provide accurate information from reputable sources, the content of this law update is a general guide and CIP or the author is not responsible for inadvertent errors and/or any inaccuracies of the matter obtained from various resources cited therein. Specialist or registered agent's advice should be sought about your specific circumstances and specific country. Disclaimer All information is intended for your general knowledge only and is not a substitute for medical advice or treatment for special medical conditions or any specific health issues or starting a new fitness regimen.

<sup>27</sup> Dr. Rao Vepachedu at [rao.vepachedu@cardinal-ip.com](mailto:rao.vepachedu@cardinal-ip.com).

<sup>28</sup> In addition to the primary sources cited above, additional references include:

New York Times, Washington Post, Mercury News, Bayarea.com, Deccan Chronicle, the Hindu, Hindustan Times, Times of India, AP, Reuters, AFP, The Guardian, Pravda, Spiegel, Connexion, etc.

"Where the mind is without fear and the head is held high, Where knowledge is free Where the world has not been broken up into fragments, By narrow domestic walls." Rabindranath Tagore (1861-1941), Gitanjali, 1912.

One World One Family

AUM! SWASTI!

Om! Asatoma Sadgamaya, Tamasoma Jyotirgamaya, Mrityorma Amritamgamaya, Om Shantih, Shantih, Shantih! (Aum! Lead the world from wrong path to the right path, from ignorance to knowledge, from mortality to immortality, and peace!)

SWASTI! AUM!

Issue 163

5118 కలి కాలము/Kali Era | 2074 విక్రమార్క కాలము/Vikramarka Era | 1938 శాలివాహన కాలము/Salivahana Era

స్వస్తి శ్రీ హేవలంబి నామ సంవత్సరము/स्वस्ति श्री हेविलम्बी नाम संवत्सर/Swasti Sri Hevilambi Year,

మార్గశిర మాసము/MARGASIRA Month

Publication Date DECEMBER 1, 2017

Copyright ©1998-2017

Vepachedu Educational Foundation, Inc

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय । ॐ शान्तिः शान्तिः शान्तिः ॥