



on Sunday



Sonia clears tie-up with Left Front for Bengal Assembly byelections
page 7



First batch of Rafale jets to arrive in India by end of April next
page 10

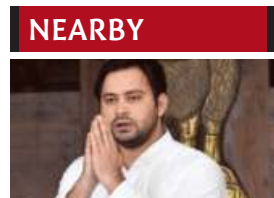


Hong Kong police fire tear gas to break up anti-govt. protests
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P. V. Sindhu storms into the World Championship final
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NEARBY
Tejashwi Yadav back in Bihar after 42 days
PATNA RJD MLA and Leader of the Opposition in Bihar Tejashwi Yadav has returned to the State after an absence of 42 days and plunged headlong into politics amid speculation that all was not well in his family and the party.

NEWS ▶ PAGE 10
Five 'journalists' booked for harassing policemen
NOIDA Five men, who identified themselves as journalists, have been booked under the Gangsters Act for allegedly pressuring policemen to serve their ends by threatening to circulate "motivated" news stories.
CITY ▶ PAGE 5
MAGAZINE ▶ 32 PAGES (TABLOID)
CLASSIFIEDS ▶ PAGE 4 & 6

Opposition delegation turned back from Srinagar airport

12-member team wanted to take stock of situation

SANDEEP PHUKAN
NEW DELHI

A delegation of Opposition leaders, led by former Congress president Rahul Gandhi, which landed in Srinagar on Saturday afternoon to take stock of the situation after the suspension of Article 370, was not allowed to enter the city and was sent back to Delhi from the Srinagar airport.

The 12-member delegation was detained and taken to the VIP lounge of the airport as soon as the leaders disembarked from the aircraft.

A video clip, filmed at the VIP lounge and released by



No entry: Rahul Gandhi and other Opposition leaders at the Delhi airport on their return from Srinagar. ■ SANDEEP SAXENA

the Congress, showed Mr. Gandhi trying to reason with officials of the Jammu and Kashmir administration to let them out of the airport.

"The government has invited me. The Governor has said I am invited. Now that I

have come, you are telling me I can't go out. The government has said everything is normal. Now, if everything is normal, why am I not allowed out? This is a bit surprising. We want to go to any area and talk to five, ten,

PCI wants to intervene in plea

The Press Council of India wants to present a "just" view in the Supreme Court of how free and fair reporting by the media in the curfew-hit Jammu and Kashmir should strike a balance with "paramount" national interests. It wants to intervene in a petition filed by an editor against media restrictions. ▶ PAGE 11

15 people," Mr. Gandhi told the officials who read out a government order that the delegation couldn't step out of the airport building.

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J&K WAS ISOLATED: PM ▶ PAGE 11

BJP veteran Jaitley passes away

President, PM, political leaders condole stalwart's demise

SPECIAL CORRESPONDENT
NEW DELHI

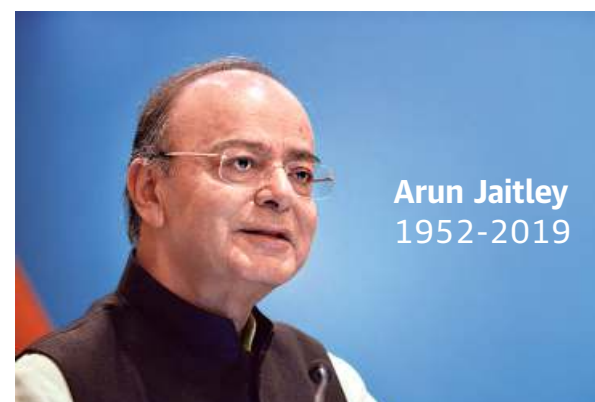
Former Union Finance Minister and senior BJP leader Arun Jaitley passed away on Saturday at the All India Institute of Medical Sciences (AIIMS) at 12.07 p.m. He was 66 and survived by wife and two children.

Mr. Jaitley had been admitted on August 9 with complaints of uneasiness and breathlessness and was under the care of a multi-disciplinary team of senior doctors. He was put on prolonged cardiac and respiratory support after his condition deteriorated days after he was admitted.

In a statement, AIIMS said: "It is with profound grief that we inform about the sad demise of Arun Jaitley, former Finance Minister of Government of India, at 12.07 p.m. on August 24."

The former Minister had been unwell for a larger part of the past two years. In 2014, he underwent a bariatric surgery to correct the weight he had gained because of a long-standing diabetic condition. In 2018, he underwent a kidney transplant surgery at AIIMS. Earlier this year, in January, he was diagnosed with a rare form of soft tissue sarcoma, a form of cancer.

Later in the afternoon, Mr. Jaitley's mortal remains were shifted to his Kailash Colony residence where sev-



Arun Jaitley
1952-2019

eral leaders, including BJP president Amit Shah, Union Ministers Harsh Vardhan and Jitendra Singh and party working president J.P. Nadda, offered floral tributes.

Mr. Jaitley will be cremated on Sunday afternoon at the Nigambodh Ghat, BJP leader Sudhanshu Mittal said.

'Valuable friend'

In a tribute to Mr. Jaitley, Prime Minister Narendra Modi described him as a "valued friend" whose insights and nuanced understanding of matters had "very few parallels". Mr. Modi, who is in the UAE on an official tour, said the former Finance Minister was full of life, blessed with wit, a great sense of humour and charisma.

In a series of tweets, Mr. Modi said Mr. Jaitley was admired by people across all sections of society, adding that he was multi-faceted,

and had impeccable knowledge of India's Constitution, history, public policy, governance and administration. "With the demise of Arun Jaitley Ji, I have lost a valued friend, whom I have had the honour of knowing for decades," Mr. Modi said.

The BJP lost several of its leaders, including former External Affairs Minister Sushma Swaraj, former Prime Minister Atal Bihari Vajpayee, former Goa Chief Minister Manohar Parrikar and Union Minister Ananth Kumar, in the past one year. Mr. Jaitley died 18 days after Sushma Swaraj.

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DELHI'S INSIDER WHO REACHED ACROSS THE AISLE ▶ PAGE 11
INDUSTRY REMEMBERS 'MAN OF MANY REFORMS' ▶ PAGE 13
'ABLE AND RESPECTED' CRICKET ADMINISTRATOR ▶ PAGE 17
A GREAT LOSS FOR THE NATION ▶ PAGE 3

U.S.-China trade war likely to dominate Modi-Trump talks

SUHASINI HAIDAR
NEW DELHI

Prime Minister Narendra Modi and U.S. President Donald Trump will meet in Biarritz, France, on Sunday, where India is a special invitee to the G-7 summit. The meeting comes ahead of the one-on-one meeting between the two leaders on

Monday, where trade issues are expected to overshadow proceedings.

While the impact of the growing U.S.-China trade war will take centre stage, New Delhi is closely watching a special meeting at the G-7 on how to reform the World Trade Organisation (WTO), where U.S. trade offi-

cial have indicated that Mr. Trump could bring a proposal to stop India and China from availing themselves of special rights as developing countries.

Mr. Trump and Mr. Modi's primary mission is to put trade talks between India and the U.S., which stalled last November, back on

track. Despite an agreement by the two leaders to restart the talks when they last met in June, top trade representatives of the two countries haven't scheduled a meeting yet. During a 30-minute telephone conversation with Mr. Trump on August 19, Mr. Modi had "expressed the hope" that Commerce Minister Piy-

ush Goyal and U.S. Trade Representative Robert Lighthizer would "meet at an early date". While Mr. Goyal is expected to travel to Washington early next month, a Ministry official said that no date has been set as yet.

CONTINUED ON ▶ PAGE 10
TRUMP MEETS MACRON ▶ PAGE 12

Modi honoured



Royal reception: Prime Minister Narendra Modi greets Crown Prince Sheikh Mohammed bin Zayed Al Nahyan, after being honoured with the Order of Zayed, the UAE's highest civilian award, in Abu Dhabi on Saturday. ■ PTI (REPORT: PAGE 10)

Minority students' group threatens stir over final NRC

AASMSU cautions against excluding genuine citizens, including foreigners

SPECIAL CORRESPONDENT
GUWAHATI

The All Assam Minority Students' Union (AASMSU) has threatened to launch an "intense agitation" if any genuine Indian citizen is excluded and a "single foreigner" included in the final National Register of Citizens to be published on August 31.

The threat follows the general apprehension that the final NRC would not be error-free.

The students' body has also warned against any move to change or amend Clause 6 of the Assam Accord of 1985 that seeks to provide "constitutional, legislative and administrative safeguards" and "protect, preserve and promote the cultural, social, linguistic identity and heritage of the Assamese people".

The accord also fixed March 24, 1971, as the cut-off date for detection and depor-



The final National Register of Citizens is to be published on August 31. ■ FILE PHOTO: RITU RAJ KONWAR

tation of all illegal immigrants irrespective of their religion.

"A force is trying to derail the NRC process and there are speculations that many illegal immigrants have been included while genuine Indians have been left out. We will be compelled to launch a democratic movement against the NRC authority if we find any discrepancies," AASMSU adviser Azizur Rahman told media persons on Saturday.

He questioned the "mo-

tivation" behind forcing thousands of people already included in the NRC to reverify their documents ahead of the publication of the citizens' list. "The NRC authority would be solely responsible for any untoward incident that might happen," he added.

'Deliberate exclusion'

"The religious and linguistic minorities of Assam have cooperated in the exercise monitored by the Supreme Court. No one disputes the

cut-off date, and the apex court has often told State NRC Coordinator Prateek Hajela to ensure nobody with valid citizenship documents is harassed," AASMSU general secretary Abdur Rahman Biswas said on Saturday. "But deliberately excluding people with citizenship documents prior to March 25, 1971 or including foreigners who came to Assam after that date will not be tolerated."

The AASMSU advised against provocative statements and asked the government to crack down on forces that might try to create communal tension.

The minority students' body welcomed the constitution of a high-level committee for the implementation of Clause 6 of the Assam Accord. But it asked the committee to not be partisan and go by the Assam Accord cut-off date while preparing its report.

Savarkar bust removed from DU campus

PRESS TRUST OF INDIA
NEW DELHI

Confusion prevailed on Saturday over the overnight removal of busts of Veer Savarkar, Bhagat Singh and Netaji Subhash Chandra Bose from outside the Arts Faculty of Delhi University's North Campus.

While the RSS-affiliated ABVP, in a statement, claimed it was removed by the Delhi University Students' Union, the student outfit's member and outgoing president Shakti Singh accused the DU administration of removing the busts.

A senior functionary of the Akhil Bharatiya Vidyarthi Parishad said the outfit wants that the busts should be installed with due permission and with pomp and show and not silently.

DETAILS ON ▶ PAGE 2

Five Maoists killed in Chhattisgarh

Two jawans also injured in the gunfight

PRESS TRUST OF INDIA
RAIPUR

Five Maoists were killed in a gunfight with security forces in Narayanpur district of Chhattisgarh on Saturday, police said.

Two jawans of the District Reserve Guard were also injured in the gun battle, they said.

"The exchange of fire took place around 6 a.m. in the forest near Dhurbeda village, located around 20 km away from Orchha police station in the district. It occurred when a DRG team was out on a counter-insurgency operation," said Director General of Police D.M. Awasthi.

Acting on a specific intelligence input about the location of a Maoist training camp in the interior forest

of Orchha, about 350 km from Raipur, a team of DRG raided the place, he said.

The gunfight lasted for around one and a half hours, following which the ultras disappeared into the dense forest, he said.

Huge cache of weapons

"During search operations, bodies of five Maoists were recovered from the spot. Besides, a huge cache of weapons was also seized from there," the officer said.

Efforts were on to move the two DRG personnel who sustained injuries in the gunfight from the forests.

Further details will be known once the patrolling team returns to its camp, Mr. Awasthi said.

Villagers sit on dharna outside Vedanta refinery

Prohibitory orders imposed in Lanjigarh

PRAFULLA DAS
BHUBANESWAR

Tension prevailed in the Lanjigarh area of Kalahandi district on Saturday after a large number of residents sat on a dharna outside the main gate of the Vedanta alumina refinery demanding compensation of ₹10 lakh for the death of a fellow villager in judicial custody.

Patnaik Harijan, a resident of Rengapalli village under Lanjigarh block, died early on Saturday at a government hospital in Burla where he was admitted by the Kalahandi jail authorities a day earlier.

The agitating villagers had kept Harijan's body at the dharna site. To avoid any untoward incident, the local administration imposed prohibitory orders in the area.

Harijan (45) was arrested in March, along with 28 others, following a clash between villagers and personnel of Odisha Industrial Security Force outside the refinery main gate. Dani Batra, a villager, and Sujit Minz, an OISF constable, were killed in the clash which broke out when the villagers were staging a protest demanding employment for locals in the refinery.

A group of citizens and organisations demanded a judicial probe into Harijan's death. In a statement, as many as 23 activists, writers and lawyers demanded punishment for all erring officers, withdrawal of cases against those who are still in jail, a probe into the death of Batra and pull-out of CRPF men from the Niyamgiri region.

Walling off the sea to save Sunderbans temple

Geotube shield to save 2,300 metres of the coast along the Kapil Muni shrine

SHIV SAHAY SINGH
SAGAR ISLAND (SUNDERBANS)

The Kapil Muni temple on Sagar Island in the Sunderbans, where a large number of devotees gather every year during the Gangesagar fair, is facing the threat of rising seas and will be submerged in the next few years.

Bankim Hazra, the local MLA and Gangesagar Bakkhali Development Authority (GBDA) chairperson, is campaigning to save the temple located 400 metres from the sea. "The sea is advancing at the rate of 15 metres a year. If the trend continues, there will be a need to relocate the temple," Mr. Hazra said, to a group of journalists at a media workshop on climate change in the Bay of Bengal



Closing in: The temple is facing the threat of submersion in the next few years. ■ SPECIAL ARRANGEMENT

region, organised by The Third Pole and the Earth Journalism Network.

The West Bengal government is taking steps to prevent further erosion of the coast. "The Finance Department has given in principle approval for the construction of sea walls using offshore submerged geotubes (sand-like material

filled into geo-textile tube). The cost is ₹77 crore. The design is being made by IIT-Madras and the project will be implemented by Mackintosh Burn," he said. GBDA officials said the work would be completed in two phases.

The project involves a comprehensive plan for "beach protection and

coastal erosion protection for 2,300 metres along the stretch of the Kapil Muni temple and the Gangesagar mela ground".

This is not the first time that the temple is facing the problem of rising seas. It is believed that the existing temple is the seventh at the site, after six structures built earlier went into the sea. According to legend, King Bhagirath, after a long penance, brought the Ganga down from the Himalayas to liberate his ancestors, who were burnt to ashes in front of the Kapil Muni temple on Sagar Island. It is also believed that the temple is located at the point where the river meets the sea.

(The writer was in Sagar Island as part of a trip arranged by The Third Pole)

DELHI Timings

SUNDAY, AUG. 25

RISE 05:56 SET 18:51
RISE 00:22 SET 14:26

MONDAY, AUG. 26

RISE 05:56 SET 18:50
RISE 01:13 SET 15:27

TUESDAY, AUG. 27

RISE 05:57 SET 18:49
RISE 02:10 SET 16:26

Delhi Weather max min

Delhi City 34 28
Safdarjang 34 28
Palam 34 28

Delhi Palam Today
34°C A hazy and humid morning. Day will be warm with cloudy sky. Spell of light rain and thundershower.

Delhi Palam Tomorrow
36°C One or two spells of rain likely over Delhi and NCR. Short spell of light rain may occur at isolated places.

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Air quality of Delhi-NCR

Delhi	147	Gurgaon	117
Ghaziabad	176	Faridabad	93
Noida	142	Greater Noida	172

Good 0-50 Satisfactory 51-100 Moderate 101-200
Poor 201-300 Very poor 301-400 Severe >401

AIR QUALITY INDEX AT 4 P.M., YESTERDAY (AVERAGE OF PAST 24 HOURS) | SOURCE: CPCB

Cracks appear in houses as metro passes underground

Residents of Begumpur village and Sarvapriya Vihar say the walls and floors of their houses have been damaged due to vibrations from trains

NIKHIL M BABU
NEW DELHI

As an underground metro train passed around 4.30 p.m., the cracked white marble floor of 62-year-old Surendrapal Singh's house vibrated and a dull sound which accompanied it lasted for a little less than 10 seconds.

"See, this is what happens," Mr. Singh said, pointing to the floor that, he said, developed cracks after the Yellow line of the Delhi Metro started operations in the area about seven years ago. Cracked walls and floors of houses, damaged roof and a sense of fear are what have become common for several residents of South Delhi.

In two areas to which *The Hindu* paid visits in South Delhi — Begumpur village and Sarvapriya Vihar — the vibrations due to the movement of the trains could be felt inside houses and even on the streets.

On Friday, the DMRC, in an action-taken report, res-



Cracked walls, floors and damaged roof of houses in Begumpur village and Sarvapriya Vihar. *SUSHIL KUMAR VERMA, SPECIAL ARRANGEMENT

ponding to the complaints by AAP MLA Somnath Bharti, said that they were working to solve the issue.

In Sarvapriya Vihar, residents said that the vibrations started after the Magenta Line of the Delhi Metro started operations last year and claimed that those are increasing with each passing day. In Begumpur, however, residents said that the vibrations have decreased over the years.

"In stretches where complaints of noise and vibra-

tions were received, train fastening system has been changed resulting in an appreciable reduction in vibration in the locality," the DMRC had said in its action-taken report on vibrations in Haus Khaz, Shivalik, Begumpur and Sarvapriya Vihar.

According to Mr. Bharti, hundreds of houses are affected. "We have been complaining about the issue to the DMRC over the years, but it has just been giving different excuses each time."



"The existing cracks keep on deepening," said Mr. Singh's wife, Jaspal Kaur (58) pointing at those in their house in Begumpur village. "If we fix them and then the cracks reappear, what will we do? Who will spend money again?" she said.

Mr. Singh's two-and-a-half-year-old granddaughter has slipped and tumbled down multiple times inside the house, due to the uneven, cracked floor. "Around 20 days ago, she fell in the bedroom," the

toddler's mother Harmeet Kaur (30) said.

At the house of 62-year-old Ashish Ghosh, a chartered accountant, the vibrations of the metro trains were felt six times in just half-an-hour and it was felt on the street outside the house as well.

Measuring machine
Showing a map of the metro lines in the area, he said, "The Magenta Line passes directly from under my house. The DMRC officials



In stretches where complaints of noise and vibrations were received, train fastening system has been changed resulting in an appreciable reduction in vibration in the locality

ACTION-TAKEN REPORT BY DELHI METRO RAIL CORPORATION

had installed a machine to measure the vibrations four times in my house, but they never gave me the report."

R.G. Holla (58) showed the damaged roof of his house besides the cracked walls.

Sonia (42), a housemaker, who lives on the second floor of a building in Begumpur, showing the cracks on the wall of her house, said, "I had got the plaster done again last year, but there are cracks again. Sometimes at night, I rush outside mistak-

ing the sound of metro trains for my husband's bike's sound."

Earthquake
Aruna Sharma (76), who lives on Sarvapriya Vihar's 7th street, said: "In July, my nephew had come to visit me. He was watching the TV, when he suddenly jumped out of the bed and said he felt an earthquake. I later told him that it was the metro," she said, adding: "It is annoying and will affect our houses."

Man poses as divorcee, 'rapes' woman

The accused has been arrested

STAFF REPORTER

NEW DELHI
A 31-year-old man has been arrested for allegedly raping a woman, a resident of Gandhi Nagar, the police said on Saturday. The accused had allegedly told her that he was a divorcee, they said.

A senior police officer said that the accused has been identified as Kausal Valecha who was arrested on Friday by a team of officers from Madhu Vihar police station where the case was reported.

The police said that the victim had approached the police a few days ago. She said that she had met the accused on a matrimonial website. The accused allegedly told her that he was a divorcee after which the two started talking. The woman said that she did not hide the fact that she was married and had told him that she wanted to continue

the relationship with the man after her divorce.

"In January 2018, he [accused] 'solemnised' our marriage in a temple in Faridabad. However, in February, I came to know that he was already married and has children and that he had uploaded fake information about himself on the matrimonial website," the victim told the police. She added that the accused had also started threatening her to share her intimate pictures on the social media.

The victim further said that the accused had promised her to delete her pictures from his laptop. She alleged that in July this year, he took her to a hotel and raped her and threatened to share pictures again if she disclosed it to anyone.

Based on the victim's complaint, a case on charges of rape was registered and the accused was arrested, the police said.

Busts of Savarkar, others removed from DU campus

Some students in collusion with university administration are behind the move: ABVP

PRESS TRUST OF INDIA

NEW DELHI
Confusion prevailed on Saturday over the overnight removal of busts of Veer Savarkar, Bhagat Singh and Netaji Subhas Chandra Bose from outside the Arts Faculty of Delhi University's North Campus.

While the RSS-affiliated ABVP, in a statement, claimed it was removed by Delhi University Students' Union (DUSU), the students' outfit's member and outgoing president Shakti Singh accused the university administration of removing the busts.

A senior functionary of ABVP, however, said the outfit wants that the busts should be installed with due permission and with pomp and show and not silently.

Mr. Singh, meanwhile, said, "Late last night, DU removed the idols installed by the students. This is obviously an insult to the martyrs and I am opposed to this. The DU administration is intent on killing the students' union here." He alleged that "some students" in collusion with



The busts were removed on the intervening night of Friday and Saturday. *FILE PHOTO

the administration were behind this move and he will protest against this. "I wanted to resolve the issue through dialogue but the administration has not left the space for it," he said.

The ABVP-led DUSU has removed the busts from the campus, the students' outfit said in a statement on Saturday morning.

The ABVP, however, claimed the DU has assured that the busts will be reinstalled after the DUSU polls are concluded on September 12.

The busts of the three freedom fighter were installed on

affiliated student organisations, along with AAP's CYSS and the NSUI had "stooped to a low level" and were harming the "the culture of debate and discussion, prevalent in the university".

ABVP Delhi's state secretary Sidharth Yadav said, "The university should restore these idols at the earliest."

"The manner in which other students' bodies have carried out such acts reveal their real and degraded mindset towards freedom fighters," he added.

"At the same time, the Congress should understand that its 'Kaalikh model' is not going to hide the reality," he said.

Meanwhile, the Congress-affiliated NSUI said its opposition has led to the removal of the busts.

The NSUI claimed the statues were removed after a representation was made by NSUI member and DUSU general secretary Aakash Choudhary to the administration for the same.

Body with tattoo: murder mystery solved, 2 held

Victim was shot dead after he passed comment on wife of one of the accused

STAFF REPORTER

NEW DELHI
Two persons have been arrested for allegedly killing a 31-year-old man whose body was found in east Delhi's Ghaziabad earlier this month, the police said on Saturday.

Deputy Commissioner of Police (East) Jasmeet Singh said that the accused have been identified as Zile Singh (35) and Mahender Singh (35) who have been arrested for killing Sunny alias Sachin in Nand Nagri after the victim passed some com-



The accused in police custody. *SPECIAL ARRANGEMENT

ment on Zile's wife.

Both the accused and the victim have criminal history, the police said.

The police control room received a call on August 3

regarding a man who was found murdered near Ghaziabad. The police reached the spot and found that the body was wrapped in a cover and there was a

tattoo, which read 'Sunny', on the arm.

During investigation, the victim was identified and it was found that he had been involved in five cases of murder and robbery, they said. "It was also revealed that on the night of August 2, he had passed some comment on Zile's wife, which did not go down well with Zile and Mahender who considers Zile's wife as his sister. The two shot Sunny dead, wrapped his body in a cover and dumped it in Ghaziabad," Mr Singh said.

Man kidnaps 3 girls to implicate policemen

Accused held; he wanted to take revenge on officers who had arrested him earlier

STAFF REPORTER

NEW DELHI
A 38-year-old man, who was arrested in June this year, allegedly kidnapped three minors from south-east Delhi's Kalindi Kunj, the police said on Saturday. They said the accused wanted to implicate the police officers, who had arrested him, in the kidnapping case and thus introduced himself as a police officer while talking to the children's family.

Deputy Commissioner of Police (South-East) Chinmoy Biswal said that the accused has been identified as Bimal Kumar, a resident of Noida.

Uncle received call

The police said that on Thursday, Yashpal Singh, a resident of Jaitpur, received a call at his office in Gurugram from a man who introduced himself



Bimal Kumar in police custody. *SPECIAL ARRANGEMENT

as a police officer from Kalindi Kunj police station. The man allegedly told Mr. Singh said that the latter's nieces aged 11, 15 and 17 were at the station and had complained that their uncle ill-treats them. Mr. Singh called his wife and asked her to visit the police station.

When the wife went to the police station, she was informed that neither the nieces were at the police station nor was any complaint made.

The caller allegedly called the complainant again and said that he had handed over the girls to another police officer at Khadda Colony police booth. The matter was then reported to the police and a kidnapping case was registered, Mr. Biswal said.

Subsequently, with the help of technical surveillance, the accused was arrested from Jaitpur on his way to Noida on Friday, the police said, adding that at his instance, the minor girls were also safely rescued from a rented accommodation in Faridabad.

The police said that Bimal used to introduce himself as a police officer from the Anti-Corruption Branch. During interrogation, he told the police that he was arrested on June 30 for breach of peace after which he wanted to take

revenge on the two officers who had arrested him. He, therefore, planned to frame the officers in the case of the missing girls.

He had on August 16 spotted the girls near their house in Jaitpur. He interacted with the girls and came to know that after their parents passed away they started living with their paternal uncle and aunt who "do not love them".

The accused introduced himself as a member of an NGO and promised to help them get their shares of property so that they could live separately. He again met them on Thursday and took them to Faridabad.

The police said that the accused is currently working as a market head in Anti Corruption Crime Control Force, a Rohini-based NGO.

All Rapid Rail Transit System corridors will be interoperable

3 corridors will converge at Sarai Kale Khan station: NCRTC

PRESS TRUST OF INDIA

NEW DELHI
To ensure hassle-free commuting, the National Capital Region Transport Corporation (NCRTC) said all three Rapid Rail Transit System (RRTS) corridors will be interoperable.

An official of the NCRTC said commuters will be able to travel from one corridor to another without changing the train.

According to the NCRTC, which is the implementing agency for the RRTS project in Delhi-NCR, three corridors of phase-1 — Delhi-Gha-

ziabad-Meerut, Delhi-Panipat and Delhi-Gurugram-SNB (Shahjahanpur-Neemrana-Behror Urban Complex) — will be converging at Sarai Kale Khan RRTS station in Delhi.

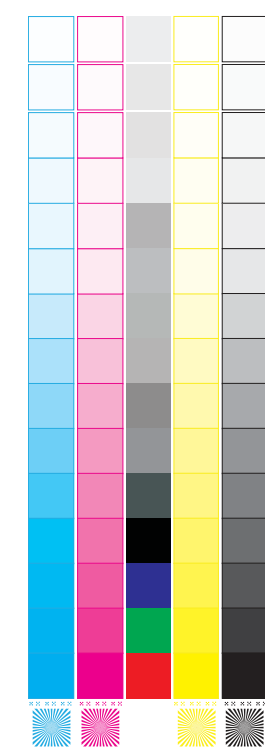
For instance, if a commuter boards an RRTS train from Rajiv Chowk station of Delhi-SNB corridor and wish to travel to Ghaziabad RRTS station of the Delhi-Ghaziabad-Meerut corridor, he or she can directly reach Ghaziabad RRTS station without changing the train.

The NCRTC will adopt European Rail Traffic Manage-

ment System (ERTMS) Level 2 to implement interoperability in the RRTS system, the official also said.

"This will be the first time in India that ERTMS Level 2 signalling system will be used for a commuter train operating at a speed of 160 kmph," he said.

Interoperability of the three RRTS corridors will provide a hassle-free, comfortable and seamless travel experience to the commuters that will motivate them to switch to RRTS from private vehicles, the official added.



'Country has lost a great economist, advocate and speaker'

Delhi BJP leaders mourn loss of mentor; Opposition parties term Jaitley's demise a loss for nation; Bar Council says he will be remembered for his legal acumen

STAFF REPORTER
NEW DELHI

Tributes poured in for veteran BJP leader Arun Jaitley from across party lines here on Saturday.

Partymen from the BJP's State unit mourned the loss of a mentor and said the guidance which Jaitley had provided from time to time would no longer be available. Leaders from Opposition parties termed the death of the 66-year-old a "loss for the nation".

"Untimely demise of former FM and senior leader Sh Arun Jaitley ji is a huge loss to the nation. A legal luminary and an experienced political leader known for his governance skills will be missed by the country. Thoughts and prayers with his family in this moment of grief. RIP [sic]," Chief Minister Arvind Kejriwal tweeted.

Delhi BJP chief Manoj Tiwari said the former Finance Minister's demise was "a great loss" to the Delhi BJP. "I am shocked by this news. This is also a great loss to the nation because the country has lost a great economist, advocate and a great speaker. Shri Jaitley had great affection for the people of Delhi. He had been guiding the Delhi BJP from time to time," the North East Delhi MP said.

Delhi Mahila Congress president Sharmishtha Mukherjee took to Twitter to express her condolences. "Really sorry to hear about the passing away of Shri Arun Jaitley ji. His tenure in Indian politics has been long & effective. A brilliant parliamentarian, young MPs across party lines could reach out to him for guidance. Heartfelt condolences to his family & friends [sic]," she tweeted.

Former Union Minister Vijay Goel, terming Jaitley a "multifaceted" friend, re-



A file photo of senior BJP leaders Vijay Goel, left, Sahib Singh Verma, centre, and Arun Jaitley during a ceremony after winning all seven LS seats in New Delhi. •SPECIAL ARRANGEMENT

called his fondness for good food. Having known him for nearly five decades, Mr. Goel, who was Jaitley's junior in Delhi University, said he had lost a "friend, colleague and guide".

"I first met him in 1971 at Shri Ram College of Commerce, where he was my senior. He was the president of the college students' union, while I was the secretary. Our relationship started as Akhil Bharatiya Vidyarthi Parishad (ABVP) activists and lasted for 48 years," the BJP leader said.

Fond of good food

Prior to his stint in student politics at university, Mr. Jaitley studied at the St. Xavier's School. After graduating in B.Com (Honours) from SRCC, Mr. Jaitley obtained an LLB degree from DU's Law Faculty.

Recalling his fondness for good food, Mr. Goel said, "He loved parathas very much. Whenever he visited my haveli [Dharampura Haveli] at Chandni Chowk, he would ask for parathas."

Mr. Jaitley spent 19

months in jail during the Emergency in the 1970s for taking out a protest march, the Rajya Sabha MP said, adding that journalist Rajat Sharma and he himself soon followed suit.

'Jaitley corner'

During his college days, Mr. Goel recalled further, Mr. Jaitley would go on outings to Shimla and Mussoorie, adding that the former Finance Minister used to go to the Lodhi Gardens in the Capital for morning walk and regularly interacted with fellow morning-walkers over tea at a spot, which came to be known as the "Jaitley corner".

As a Union Minister, Jaitley deftly handled important portfolios such as defence, and finance among others, Mr. Goel, who was his Cabinet colleague in the first term of the Narendra Modi government, said.

"He made special contributions in demonetisation, GST, macro-stabilisation, bank consolidation and the Insolvency and Bankruptcy Code in the Modi govern-

ment," Mr. Goel added.

Pride of BCI

The Bar Council of India (BCI) said Jaitley was a "pride" of the bar, the Supreme Court Bar Association (SCBA) said he would be remembered for his astute knowledge of law and his legal acumen.

The Delhi High Court Bar Association (DHCBA) and Bar Council of Delhi (BCD) also condoled Jaitley's demise and remembered his contribution to the legal fraternity.

BCI's chairman and senior advocate Manan Kumar Mishra said, "The Bar has lost an eminent jurist, a talented leader and one of its tallest members. A politician who was acceptable to people across the party lines. He always stood for the causes of the legal fraternity. He was a true friend of friends. He was pride for the Bar."

Senior advocate Rakesh K. Khanna, the president of the SCBA, said, "The void created by his demise in the political as well as the legal arena would be difficult to fill."

A cricketers' administrator

Jaitley's elevation to the top brass of the DDCA sent out positive signals; selectors were given the freedom to 'fearlessly' pick the team purely on merit

VIJAY LOKAPALLY
NEW DELHI

Arun Jaitley will always be acknowledged for his seminal work as a cricket administrator with a vision. When he took over as the president of the Delhi and District Cricket Association (DDCA) in 1999, he inherited a legacy of corruption and ineptitude, which he endeavoured to eradicate.

"All I seek is support from the cricketers," he had remarked earlier that it was not a smooth road as he had envisaged.

His elevation to the top brass of the DDCA sent out positive signals in the Capital's cricket fraternity. Former India captain Bishan Singh Bedi welcomed Jaitley with open arms and called him an administrator with cricket "close to his heart". The expectations from Jaitley were high, given his reputation as a political and legal heavyweight.

Jaitley, a medium-pacer in his college days at the Shri Ram College of Commerce, lost little time in dealing with the challenges at the Kotla. The perennial issues that plagued Delhi cricket - corruption and nepotism in selections at the junior level - were on Jaitley's radar. He issued strict instructions to selectors of all age groups and assured them of strong backing from the administration.

Clear message

The message at the Kotla was clear when he was at the



Arun Jaitley giving away the Man of the Match award to Javagal Srinath at the Ferozeshah Kotla Ground in Delhi after an India-Zimbabwe match. •FILE PHOTO: V.V. KRISHNAN

I want to establish a cricket culture. Delhi has produced some of the greatest of players and the stadium should reflect and document their achievements. I want Kotla to boast of a reputation of a Lord's. It can be done. I want every spectator to be seated comfortably and every seat accounted for.

ARUN JAITLEY

helm. Cricket and cricketers were the priority. "I want to establish a cricket culture. Delhi has produced some of the greatest of players and the stadium should reflect and document their achievements," was his view. The stadium became his ambitious project and hope rose among cricket lovers that fi-

nally the Capital would have a stadium befitting its status.

Jaitley, a cricket lover to the core, using the experience from his travels to England, worked to improve the infrastructure at the Kotla. "I want Kotla to boast of a reputation of a Lord's. It can be done. I want every spectator to be seated comfortably

and every seat accounted for. We must have a Long Room and create an atmosphere the Delhi cricketers can take pride in when playing at their home ground," he had told a group of journalists when announcing the plans for the new stadium. Sadly, the stadium did not live up to his expectations. "Some of his close aides let him down," said a former cricketer.

Win after 16 years

Cricket in Delhi improved during Jaitley's tenure. After a gap of 16 years, Delhi won the Ranji Trophy in 2008. It was essentially because of the freedom that he gave the selectors to "fearlessly" pick the team purely on merit. This after he had sacked an entire senior selection committee comprising Anil Jain, Bantu Singh, Vivek Razdan and Sunil Khanna for "unfairly" picking a player in 2006. Jaitley would never tolerate "indiscipline".

As former India opener Virender Sehwag said, "Arun ji was a gem. He backed the players. Did so much for the needy cricketers. Helped them get jobs, met their medical expenses, organised travel by air for all age groups. He was a players' man in the top seat of DDCA. Delhi cricket and cricketers owe a lot to him. In his death, Delhi cricket has lost its most dedicated supporter."

Jaitley, after 14 years at the DDCA, decided to "move on" to assume bigger responsibilities in the Central government.

Untimely demise of former FM and senior leader Sh Arun Jaitley ji is a huge loss to the nation. A legal luminary and an experienced political leader known for his governance skills will be missed by the country. Thoughts and prayers with his family in this moment of grief. RIP [sic]

ARVIND KEJRIWAL,
Chief Minister

The country has lost a great economist, advocate and a great speaker. Shri Arun Jaitley had great affection for the people of Delhi. He had been guiding the Delhi BJP from time to time

MANOJ TIWARI,
North East Delhi
BJP MP,
Delhi BJP chief

I first met him in 1971 at Shri Ram College of Commerce, where he was my senior. He was the president of the college students' union, while I was the secretary. Our relationship started as ABVP activists and lasted for 48 years

VIJAY GOEL,
Former Union
Minister

A father teaches u to speak but a father figure teaches u to talk. A father teaches u to walk but a father figure teaches u to march on. A father gives u a name but a father figure gives u an identity. A part of me is gone with my Father Figure Shri Arun Jaitley Ji. RIP Sir. [sic]

GAUTAM GAMBHIR,
East Delhi BJP MP and
former India cricketer

Arun ji was a gem. He backed the players. Did so much for the needy cricketers. Helped them get jobs, met their medical expenses, organised travel by air for [players of] all age groups. He was a players' man in the top seat of DDCA. Delhi cricket and cricketers owe a lot to him. In his death, Delhi cricket has lost its most dedicated supporter

VIRENDER SEHWAG,
Former India cricketer

Devise appropriate mechanism over industry expansion: NGT

Panel asks Centre to take steps where pollution level is high

STAFF REPORTER
NEW DELHI

The National Green Tribunal (NGT) has directed the Union Environment Ministry to devise an "appropriate mechanism" to ensure that new industries or their expansion takes place after "due precautions" in areas where the pollution level is already high.

The directions came when a Bench headed by NGT Chairperson Justice Adarsh Kumar Goel was hearing a review plea moved by the Central Pollution Control Board (CPCB) seeking clarifications to a previous order passed by the tribunal pertaining to air pollution resulting from industries.

Referring to its previous order, the Bench reiterated, "If any unit is compliant with the norms, such unit is not affected. There is no basis for apprehension that compensation may have to be paid twice. The provisions of various environmental Acts are to be enforced not only against the industrial units but also against every polluting activity whether the same has already been set up or is yet to be set up..."

Noting submissions made by the Ministry of Environment, Forests and Climate Change (MoEF&CC) pertain-



The directions came while hearing a review plea moved by the CPCB seeking clarifications to a previous order passed by the tribunal pertaining to air pollution resulting from industries. •FILE PHOTO: SHANKER CHAKRAVARTY

The provisions of various environmental Acts are to be enforced not only against the industrial units but also against every polluting activity whether the same has already been set up or is yet to be set up

NGT BENCH

of such steps can be no justification for not enforcing the existing pollution norms..."

Safe parameters

Earlier, in December 2018, the green panel had directed all the State pollution control boards and pollution control committees to finalise the time-bound action plans within three months to "bring all polluted industrial clusters within the safe parameters under the provisions of relevant Acts".

The pollution control boards were also directed to recover compensation for damages from polluting industries and "adopt precautionary measures."

'Two AAP leaders, one from Cong. keen to join us'

They were fielded by their parties from separate LS constituencies in Delhi but lost, says a BJP source

PRESS TRUST OF INDIA
NEW DELHI

Impressed by the government's decision to scrap Jammu and Kashmir's special status and the BJP's massive Lok Sabha poll victory, two leaders from AAP and one from the Congress are "eager" to join the BJP, saffron party sources claimed on Saturday.

The three were fielded by their parties from separate Lok Sabha constituencies in Delhi, but lost to their BJP rivals, they said.

Expresses eagerness

"They expressed their eagerness to join the party post Article 370 abrogation by the Modi government," a top Delhi BJP leader said.

"These leaders contested the Lok Sabha poll from separate constituencies in Delhi

and lost with big margins. They are now in touch with the BJP showing interest in joining the party," the BJP leader said.

After a failed attempt at stitching a pre-poll alliance for the Lok Sabha election, the Congress and AAP fielded candidates on all the seven seats here.

'Green signal'

"Apart from their appreciation for Prime Minister Narendra Modi for the way he ended special status of Jammu and Kashmir by scrapping Article 370, these three leaders have also been impressed by BJP's massive victory in the Lok Sabha poll this year," said another top BJP leader, who is in touch with the trio.

They had contested the Lok Sabha poll from South,

Apart from their appreciation for Prime Minister Narendra Modi for the way he ended special status of Jammu and Kashmir by scrapping Article 370, these three leaders have also been impressed by BJP's massive victory in the Lok Sabha poll this year

TOP BJP LEADER WHO IS IN TOUCH WITH THE TRIO

North West and West Delhi seats, he said, adding they may join the BJP after its national leadership gives a "green signal".

"Two of them had contested Lok Sabha polls on the AAP ticket while one

was fielded by the Congress," he added.

Delhi BJP president Manoj Tiwari said many people were interested in joining the party, but did not comment on these specific cases.

"The charisma of Prime Minister Narendra Modi is drawing many people towards the BJP," he said.

Inroads in AAP bastion

The Delhi BJP sources claimed that led by Manoj Tiwari, their national capital unit has managed to make inroads into the Purvanchali and Bihari pockets in Delhi, which were considered AAP bastions. "It also acted as another reason behind the three leaders decision to switch sides and join the BJP," he said.

The Aam Aadmi Party

had registered a stupendous victory in the 2015 Assembly polls, winning 67 of the 70 Assembly seats in Delhi, with the support of the Bhojpuri-speaking Eastern U.P. (Purvanchali) and Bihar residents settled in the city.

Tiwari is a well-known Bhojpuri actor-singer from Bihar. He has been able to solidly connect to this community which was evident in BJP's impressive victories in municipal polls in 2017 and the Lok Sabha poll this year" they said.

In the run up to the Assembly polls, scheduled early next year, the Delhi BJP has reportedly added around 17 lakh new members, with its leaders claiming it will be a major strength for the party as it looks to upstage the AAP in the national capital.

Humid day in national capital

Cloudy sky forecast for Sunday

PRESS TRUST OF INDIA
NEW DELHI

Delhiites experienced a humid on Saturday with light rainfall in some parts of the national capital, officials said. The maximum temperature settled at 33.9 degrees Celsius and the minimum was recorded at 28 degrees Celsius, a meteorological department official said.

The Palam observatory recorded 1.8 mm rainfall, they said. Humidi-

ty levels oscillated between 80% and 76%. The weatherman has forecast cloudy sky for Sunday with the possibility of light rain and thundershowers.

Maximum temperature is expected to be around 32 degrees Celsius and the minimum 27 degrees Celsius, he said. On Friday, the city recorded a high of 36.2 degrees Celsius, three notches above normal, and a low of 24.6 degrees Celsius.

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A washerman dries clothes on the banks of the Yamuna. Road and rail movement on the Old Iron Bridge partially resumed after water level in the river receded in Delhi on Saturday. •R.V. MOORTHY

'Furnish timelines for Yamuna rejuvenation'

NGT directs Delhi, Haryana and U.P.

STAFF REPORTER
NEW DELHI

The National Green Tribunal (NGT) has directed the State governments of Delhi, Haryana and Uttar Pradesh to furnish timelines pertaining to the rejuvenation of river Yamuna.

While directing various agencies, including the Delhi Pollution Control Committee, Delhi Development Authority and the Delhi Jal Board, to furnish timelines for action plans as well, a Bench headed by NGT Chairperson Justice Adarsh Kumar Goel observed that previous timelines have "failed repeatedly".

"It is made clear that the tribunal will finalise the

fresh timelines with clear adverse consequences of violating such revised timelines. This is necessary as repeated timelines have not been adhered to in the last 30 years and pollution of river Yamuna is continuing," the Bench observed.

Adding that the pollution in the river needs to be curbed, the Bench said, "Such pollution needs to be controlled at the earliest for protection of environment and public health and having regard to unique significance of the river Yamuna which is a major tributary of river Ganga." The Bench specified that the final order in the matter will be passed by September 6.

Gangsters Act on five 'journalists' over 'motivated' content on portal

They allegedly put pressure on policemen to serve their ends

PRESS TRUST OF INDIA
NOIDA

Five men, who identified themselves as journalists, have been booked under the Gangsters Act for allegedly putting pressure on police personnel to serve their ends and threatening to circulate "motivated" news stories to malign the image of the cops, officials said here on Saturday.

The five worked as a gang with a motive to have government officials, especially policemen, work for their agenda, mostly to help accused in police cases, in lieu of money, the police and administration officials here said.

"Accused Pandit, Goyal, Rai and Pandey have been arrested, while their fifth partner Raman Thakur is absconding," Gautam Buddh Nagar District Magistrate B.N. Singh said in a joint press conference with Senior Superintendent of Police Vaibhav Krishna.

"Using their influence as media persons, the gang was putting undue pressure on officers to prevent them from carrying out their lawful duty," Mr. Singh said.

He said the officials, who would not toe their line, were targeted by the gang, which disseminated content to malign their image and cited the headlines of a couple of their news stories which

accused the police force in Noida and other parts of Uttar Pradesh of caste bias in transfers.

"They would put out motivated news stories to malign their image, create a negative perception about such officials, including IPS officers, by circulating content on their news portals, social media and WhatsApp," Mr. Singh said.

SSP Krishna said the accused have been arrested and none of them is an accredited journalist.

They have been accused of misusing "freedom of expression" by running "baseless news" targeting police officers, the FIR details state.

Consumer panel asks courier, cargo firm to pay ₹15 lakh to govt. body

It had failed to deliver campaign material to various States in 2010

STAFF REPORTER
NEW DELHI

The State Consumer Disputes Redressal Commission here has directed a private courier and cargo company to compensate The National Trust, which is under the Union Ministry of Social Justice, by paying ₹15 lakh for failing to deliver campaign material to various States in 2010.

The National Trust

The directions came when The National Trust approached the consumer panel stating that despite paying ₹25,000 for the material to be delivered to various States, the company failed to do so.

"The company was hand-

It is an undisputed fact that the complainant and opposite parties did enter into a contract for the delivery of items required for the occasion. It is also undisputed that the items were not delivered causing agony and harassment to the complainant

STATE CONSUMER DISPUTES REDRESSAL COMMISSION

ed over the entire material to be sent with the instruction to ensure safe delivery without any delay... However, later the complainant was in-

formed that the material was still lying with the company. The complainant was asked to make the immediate payment of ₹1.35 lakh," read the complaint.

Additional amount

Further, it was contended that despite paying the additional amount, the company failed to deliver the material to 11 destinations and "thereby rendered the entire efforts at those 11 destinations to be meaningless for want of the awareness material".

Holding the company deficient in services for failing to deliver the material, the consumer panel observed, "It is an undisputed fact that the complainant and opposite parties did enter into

contract for the delivery of items required for the occasion. It is also undisputed that the items were not delivered causing agony and harassment to the complainant."

While the Trust asked for a compensation of over ₹25 lakh for the deficiency, the State commission observed, "Keeping in view of the facts and circumstances of the case and the legal position, the Bench is of the considered view that the ends of justice would be met if compensation of ₹15 lakh is awarded in favour of the complainant."

The consumer forum added that the complainant has to be compensated within three months.

Claims tribunal grants wife of road accident victim ₹15 lakh compensation

Victim was standing on the footpath when an SUV hit him

SPECIAL CORRESPONDENT
NEW DELHI

A Motor Accident Claims Tribunal has awarded a compensation of ₹15.13 lakh to the wife of a 22-year-old man who lost his life in a road accident in 2017.

The victim was standing on the footpath when an SUV hit him from behind. The car owner was driving it. In his defence, the vehicle owner said that no accident had taken place with his

SUV. However, he did not examine any defence witness in his support.

The insurer of the offending vehicle did not press any defence.

Unskilled worker

The petitioners had demanded ₹35 lakh compensation but the tribunal brought it down to ₹15.13 lakh by fixing deceased's earning at ₹6,162 per month of an unskilled worker at the rate of

₹237 per day in Bihar at the time of the accident.

As the petitioners could not produce any documents in support their being residents of Delhi, the tribunal declared them residents of Bihar on the basis of the address proofs.

The tribunal held the the vehicle's driver responsible for the accident, among other things, on the basis of an eyewitness account of the mishap.

Minor killed in road accident, driver held

STAFF REPORTER
NEW DELHI

A seven-year-old boy died and his father sustained injuries after a truck hit the bike they were travelling on in Outer North's Swarup Nagar on Saturday. The truck driver has been arrested and the police have registered a case on charges of rash driving and causing death by negligence.

Deputy Commissioner of Police (Outer North) Gaurav Sharma said that the deceased has been identified as Vansh, a resident of Burari. His father Sunil is undergoing treatment, the police said.

They said that Mr. Sunil was riding the bike while Vansh was sitting pillion when the incident happened.

"The truck driver was driving rash. Mr. Sunil drove ahead of him when the truck hit the bike from right side. Mr. Sunil was thrown a few metres away while the boy came under the wheels," Mr Sharma said.

DELHI TODAY

Music: Today's event at the second edition of Shuddh Dhvani, an annual festival of Hindustani classical music will feature a vocal recital by Ravi Pal with Ejaz Khan (Sarangi) and Romaan Khan (Tabla) and a flute violin Jugalbandi by Pt. Ronu Majumdar (Flute), Pt. Kumaresh (Violin) with Pt. Tanmoy Bose (Tabla) and Pt. Harikumar (Mridangam) at Triveni Auditorium, Triveni Kala Sangam, 205, Tansen Marg, 6 p.m.

Talk: Swami Durgeshananda on Vivekachudamani at Ramana Kendra, Lodhi Road, 5 p.m.

Exhibition: "The Nature of Things", a solo painting exhibition by Kota Neelima at Visual Arts Gallery, India Habitat Centre (IHC), 11 a.m.-7 p.m.

Exhibition: "Recapturing the marvels of Rajasthan", a solo exhibition of acrylic on canvas, soft pastels on paper, water colour on paper and mixed media by Priyanka Banerjee at Convention Centre Foyer, India Habitat Centre (IHC), 11 a.m.-7 p.m.

(Mail your listings for this column at cityeditor@thehindu.co.in)



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- NOIDA, Nirula's Sec-2, Near Metro Station, Sec-15, Noida, UP
- LAJPAT NAGAR, 49, Main Ring Road, Adj. Haldi Ram, Near Moolchand Crossing

Rajasthan govt. assures help to crisis-ridden textile industry

CM Ashok Gehlot terms measures announced by Centre 'face-saving exercise'

SPECIAL CORRESPONDENT JAIPUR

Amid reports of slump and huge job losses in the textile industry, the Congress government in Rajasthan has reached out to the owners of textile mills and the associations of the textile sector with the promise to take steps for resolving their issues.

Textile units operating in several parts of the State are facing financial crisis and slowdown.

At a 'direct dialogue' with the textile industry's representatives organised here over the weekend, senior government officers, including Chief Secretary D.B. Gupta, dwelt at length on the crisis forcing the textile units to cut down their production and assured them of steps to promote the sector.

Mr. Gupta said the State's textile sector provided direct and indirect employment to lakhs of people and had gained world-wide recognition because of its high-quality products. "The State government has accorded the highest priority to resolve the textile sector's grievances and support it during the crisis," he said.



The government has met representatives of the sector to chalk out a plan to revive business. FILE PHOTO

Meanwhile, Chief Minister Ashok Gehlot on Saturday termed the measures announced by Finance Minister Nirmala Sitharaman a "face-saving exercise".

Sector-specific steps "These steps are inadequate to bring the economy back on track. There is a need to look into problems faced by different sectors and announce measures separately to bring them out of recession, slow growth and low

sales," Mr. Gehlot said. At the 'direct dialogue', representatives of textile unit associations from Pali, Balotra, Jodhpur, Bhiwadi, Bhilwara, Kishangarh and Jaipur highlighted the difficulties being faced by the mills. They demanded rationalising of power tariff, abolition of electricity duty on captive power plants and reduction in the wheeling charges on power purchased from open access. The textile mill owners sought the State govern-

The Rajasthan government has accorded the highest priority to resolve the textile sector's grievances and support it during the crisis

D.B. GUPTA Chief Secretary

ment's help in ensuring compliance with the National Green Tribunal's orders as well as pollution control. The industry representatives also requested for permission to utilise full electricity produced by solar power plants.

Mr. Gupta said a draft scheme for upgradation of the existing common effluent treatment plants and establishment of new CETPs for wastewater management had been formulated and would shortly be given final shape.

Rajasthan Pollution Control Board chairperson Sudarshan Sethi, Additional Chief Secretary (Industries) Subodh Agarwal, State Industries Commissioner K.K. Pathak and Principal Secretary, Environment & Forest, Shreya Guha were also present at the dialogue.

Birthday bash



Artistes perform during Janmashtami celebrations at Dadji Mandir in Patna, Bihar, on Saturday. ■ RANJEET KUMAR

'Include Punjab in flood situation assessment'

Amarinder expresses shock over State's exclusion from review by central team

SPECIAL CORRESPONDENT CHANDIGARH

Punjab Chief Minister Amarinder Singh has demanded the immediate inclusion of his State among those identified for on-the-spot assessment of flood situation by an Inter-Ministerial Central Team (IMCT).

The Centre has listed 11 States that the IMCT will assess for flood damage, but Punjab does not find mention in it even though it has witnessed large-scale flooding in many areas following unprecedented rain, read an official statement.

The Chief Minister expressed surprise over Punjab's non-inclusion and has urged Union Home Minister Amit Shah to immediately rectify the situation.



The Punjab government said that large-scale flooding has been reported from across the State. FILE PHOTO

"Surprised on the exclusion of Punjab from the list of States to be visited by the Inter-Ministerial Central Team to assess losses in flood-affected areas in different States. Request HM @AmitShah ji to direct the Central Team to visit Punjab to assess the huge losses [sic.]" Capt. Amarinder tweeted.

The IMCT was constituted by the Union Ministry of Home Affairs in pursuance of a decision taken at a high-level committee meeting on August 19. The committee had decided to break away from the past practice of waiting for the affected State to submit a memorandum seeking central assessment.

The IMCT has been mandated to visit the flood-affected States of Meghalaya, Assam, Tripura, Bihar, Uttarakhand, Himachal Pradesh, Gujarat, Rajasthan, Maharashtra, Karnataka, and Kerala, for making final recommendations to the Central government for allocation of flood assistance to the flood-ravaged States, according to the statement.

Capt. Amarinder pointed out that he had already written to Prime Minister Narendra Modi to seek a special flood relief package of ₹1,000 crore to address losses resulting from floods in Punjab. As per initial calculations, it is estimated that the State has suffered damage worth ₹1,700 crore due to the floods.

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Lok Insaaf Party president collapses during protest

PRESS TRUST OF INDIA PHAGWARA
Lok Insaaf Party chief and Ludhiana MLA Simarjit Singh Bains collapsed here due to exhaustion on Saturday after taking part in a 7-km protest march and a dharna. Mr. Bains was taken to the PWD rest house where a team of doctors attended to him. After recovering, he addressed the media before leaving for Ludhiana. The MLA had collapsed while speaking to the media after the protest that lasted for two-and-a-half hours. He was participating in a protest organised by Jarnail Nangal, State president of the LIP's SC wing, against the demolition of the Ravidas temple in Delhi. Superintendent of Police Manpreet Singh Dhillo confirmed that Mr. Bains had fallen sick due to heat and exhaustion.

Boy held by U.P. police for 'objectionable' online post

SPECIAL CORRESPONDENT GHAZIABAD
A young Dalit boy has been arrested by the Uttar Pradesh Police for writing an objectionable post about Lord Krishna on Saturday. The Facebook post of Atul Kumar Nastik, a resident of Senda village in Bulandshahr district, went viral on Janmashtami. "We took note of the objectionable post when locals, including a member of the IT Cell of the BJP, complained about it," said Gopal Singh, CO, Khurja. "We arrested Atul under relevant sections of the IT Act. It is the festive season and anything could be used by vested interests to vitiate the peaceful atmosphere," added Mr. Singh.

Advertisement for OBITUARY & REMEMBRANCE, listing details about the service and contact information.

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FROM PAGE ONE

Opposition team turned back from Srinagar



Back to square one: The Opposition team at the Srinagar airport before being sent back on Saturday. ■PTI

The Opposition leaders later signed a strongly worded representation and asked the officials to hand it to Jammu and Kashmir (J&K) Governor Satyapal Malik.

In their joint representation, the leaders described their detention as 'undemocratic and unconstitutional'.

Despite invitation

Leaders reiterated the issue of the Governor's invitation in their representation to the Budgam District Magistrate. "We are responsible political leaders and elected representatives and our intentions are entirely peaceful and humanitarian. We are here to express solidarity with the people of Jammu and Kashmir and Ladakh and to expedite the process of return to normalcy," it read and added that the J&K administrations apprehensions were baseless.

The delegation included Sharad Yadav (Loktantrik Janata Dal), Sitaram Yechury (CPI(M)), D. Raja (CPI), Tiruchi Siva (DMK), Dinesh Trivedi (Trinamool) and Majeed Memon (NCP), besides senior Congress leaders Ghulam Nabi Azad and Anand Sharma.

"Denial of entry to leaders of recognised political parties is an outright attack on rights of political parties to meet and address their constituents," Mr. Yechury tweeted.

"On seeing us, women and students of J&K who were inside the aircraft started screaming to express their difficulties. The situation there is certainly normal," CPI General Secretary D Raja told *The Hindu*. Video clips tweeted by a TV crew on board the Vista flight to Srinagar showed an elderly woman complaining to Mr. Gandhi about the difficulties faced by her brother in Srinagar, who is a heart patient.

No to media

The large media contingent, including TV channels that accompanied the Opposition delegation from Delhi, however, was prevented from filming at the airport on the grounds that it was a defence airport.

"Misbehaviour of police with media at Srinagar airport: direct attempt to suppress press freedom, done to conceal ground realities," Mr. Yechury tweeted.

BJP veteran leader Arun Jaitley passes away

"His insight on issues and nuanced understanding of matters had very few parallels. He lived well, leaving us all with innumerable happy memories. We will miss him!" he said.

Mr Modi also recalled his contribution to the BJP. "BJP and Arun Jaitley Ji had an unbreakable bond. As a fiery student leader, he was at forefront of protecting our democracy during the Emergency.

"He became a much liked face of our Party, who could articulate the Party programmes and ideology to a wide spectrum of society," he said.

Official sources said Mr Modi had spoken to Mr Jaitley's wife and son and both had insisted that he not cancel his foreign tour.

"A brilliant lawyer"

President Ram Nath Kovind condoled the passing away of Mr. Jaitley. "A brilliant lawyer, a seasoned parliamentarian, and a distinguished Minister, he contributed immensely to nation building," Mr Kovind said in his tribute.

BJP president and Union Home Minister Amit Shah said Mr. Jaitley's death was a personal loss.

"I am deeply saddened by the death of Arun Jaitley. Jaitley's departure is a personal loss for me. I have lost not only a senior leader of the organisation but also an integral member of the family whose support and guidance I have been receiving for years," Mr. Shah tweeted.

Senior Congress leaders also condoled Mr Jaitley's demise, with party chief Sonia Gandhi saying his contributions to public life will be remembered forever.

Ms Gandhi said Mr. Jaitley had a long innings as a public figure, parliamentarian and minister and his contributions to public life will forever be remembered.

Modi-Trump talks to focus on trade war

A meeting of officials from the USTR office and the Ministries of Commerce and External Affairs last month, that sought to unpack some of the issues including increased tariffs, WTO disputes, new Indian legislation on e-commerce and data localisation, proved inconclusive.

According to trade lobby U.S. India Strategic Partnership Forum (USISPF) President Mukesh Aghi, the main reason for the prolonged delay in the trade representatives meeting is the growing U.S.-China tensions over trade.

"An India-U.S. trade resolution is a transactional one, involving a little bit of give and take, but the U.S.-China issues are transformational,

which need major changes in laws and the way they do business. As a result, the U.S. is fully occupied with the developing situation with China at present, and unable to commit time to India," he told *The Hindu* during a visit to Delhi.

The U.S.-China trade war escalated again over the weekend as President Trump announced a 5% hike in tariffs on over \$500 billion worth of Chinese products. The decision came after Beijing imposed new tariffs on \$75 billion worth of U.S. goods.

According to Mr. Aghi, India could be the beneficiary of the U.S.-China war, but only if it shows "flexibility" to resolve the trade dispute with Washington.

Rafale will join IAF in full force in a year

Three batches of fighter pilots will undergo advanced training on the aircraft in France

DINAKAR PERI
NEW DELHI

The first batch of Rafale fighter jets will be handed over to India in September in France, but they will arrive in India only by the end of April 2020. During that time, Indian Air Force pilots will undergo advanced training on those jets in France, defence sources said.

"The first batch is scheduled to be handed over in September. From then to April 2020, three batches of eight IAF pilots [each], along with engineers and technicians, will undergo advanced training on the Indian jets in France, a senior source said. "The Indian-standard Rafale with all India-specific enhancements (ISE) will be operationally ready latest by September 2021."

Final approach

The first batch of Rafale fighter jets is expected to land in India in by end-April 2020

Aug. 2007: Ministry of Defence issues Request for Proposal for procurement of 126 medium multi-role combat aircraft fighters

Jan. 2012: Dassault Aviation's Rafale aircraft comes up with the lowest bid

Sept. 2016: India and France sign €7.87 billion Inter-Governmental Agreement for 36 Rafale multi-role fighter jets

Sept. 2019: The first batch of Rafale fighter jets to be handed over to India in France

April 2020: The first batch of jets expected to arrive in India



So far, three IAF pilots and two technical officers had been trained on the Rafales of the French Air Force, under the terms of the contract.

The first Rafale for India has made its maiden flight on

October 30, 2018 in France and is designated RBO08. RB stands for Air Marshal R.K.S. Bhaduria who, as then Deputy Chief of the IAF, led the Indian negotiation team and had a major role in the contract negotiations. This is an

instrumented aircraft flown by test pilots and all 13 ISE will be incorporated, tested and certified on this. The RBO08 will be the last to be delivered to the IAF, 67 months after the Inter-Governmental Agreement was signed in April 2022.

'Operational necessity'

In September 2016, India and France signed a €7.87-billion agreement for 36 Rafale multi-role fighter jets in fly-away condition following the surprise announcement by Prime Minister Narendra Modi in April 2015 citing "critical operational necessity" of the IAF.

Under the IGA, deliveries begin 36 months from the signing of the contract and will be completed in 67 months. The government

has consistently maintained that the deal was done to ensure quick delivery of the fighter aircraft to the IAF, which is facing a drop in squadron strength.

Some of the ISE are incorporated in the aircraft during manufacturing. The remaining will be incorporated in 2021 over three months, the source said. "This includes both software and hardware upgrades."

As reported by *The Hindu* earlier, the ISE "not present in the Rafale aircraft being operated by other countries" pertain to radar enhancements, helmet-mounted display, ability to start and operate from high-altitude airfields, advanced infrared search and track sensor, a potent electronic jammer pod and avionics.

Swamy seeks to halt work on Kartarpur

SPECIAL CORRESPONDENT
CHANDIGARH

BJP MP Subramanian Swamy on Saturday demanded that the work on the Kartarpur corridor be immediately stopped, voicing apprehension about Pakistan's intentions.

"There should not be any talks with Pakistan, keeping in view the interest of our country. In my opinion, the work on the Kartarpur project should be stopped. Whatever work has been done, let it be stopped there. We should not have any dialogue or relations with Pakistan," he told presspersons here.

"The Sikhs need to understand the bad intentions of Pakistan," Dr Swamy said.

Modi urges NRIs to invest in J&K

'We also see to it that investors get good returns on their investment,' says PM

PRESS TRUST OF INDIA
ABU DHABI

Prime Minister Narendra Modi on Saturday said "political stability and predictable policy framework" had made India an "attractive" investment destination as he urged the Indian business leaders in the UAE to invest in Jammu and Kashmir, which he said could emerge as the country's growth engine.

Addressing a group of NRI business community in the UAE capital Abu Dhabi, Mr. Modi thanked them, saying they had made a vital contribution to India's economic growth.

He said the government has framed all its policies to promote growth, generate employment avenues and boost "Make in India". "We also see to it that investors get good returns on their investment," the Prime Minister said. Urging the NRI business leaders to look at the opportunities available in India, Mr. Modi said there were lot of sectors where one could invest in the country.

Neglected for years

He urged the business leaders to invest particularly in Jammu and Kashmir, which, he said, has been neglected for years.

Jammu and Kashmir and Ladakh have a huge scope for development. For a long time, there was no development in the region, he said, adding that there is now a conducive environment for investment there. "Impetus



The way forward: Prime Minister Narendra Modi with his UAE counterparts in Abu Dhabi. ■AP

on development initiatives in Jammu and Kashmir will make it play a role in the growth engine of India and also create job opportunities for the youth there," he said.

In his address to the nation after revoking the special status to J&K, Mr. Modi said public and private companies would be encouraged to create jobs for the local youth in the region.

"J&K and Ladakh have the potential to become the biggest tourist destination in the world," he said.

"Several herbal and organic products are scattered across J&K and Ladakh. If they are identified and marketed in the global market, then it will greatly benefit the people and farmers of these regions. I urge the enterprises from all over India to come forward for this," he said.

UAE honours Modi with its highest civilian award

PRESS TRUST OF INDIA
ABU DHABI

Prime Minister Narendra Modi was honoured with the 'Order of Zayed', the UAE's highest civilian award, on Saturday in recognition of his pivotal role in building bilateral ties between the two nations.

The award was conferred on Mr. Modi by the Abu Dhabi Crown Prince, Sheikh Mohammed bin Zayed Al Nahyan, in a ceremony held at the Presidential Palace in Abu Dhabi.

"Humbled to be conferred the 'Order of Zayed' a short while ago. More than an individual, this award is for India's cultural ethos

and is dedicated to 130 crore Indians. I thank the UAE Government for this honour," Mr. Modi tweeted later.

The award has earlier been bestowed upon several world leaders, including Russian President Vladimir Putin, Britain's Queen Elizabeth II and Chinese President Xi Jinping.

Ahead of the Prime Minister's visit, the Ministry of External Affairs in a statement said the award, named after Sheikh Zayed bin Sultan Al Nahyan, the founding father of the UAE, "acquires special significance as it was awarded to Prime Minister in the year of the birth centenary of Sheikh Zayed".

Tejashwi Yadav back in Bihar

Kicks off RJD membership drive

AMARNATH TEWARY
PATNA

RJD MLA and Leader of the Opposition in Bihar Tejashwi Yadav has returned to the State after an absence of 42 days and plunged headlong into politics amid speculation that all was not well in his family and the party. Mr. Yadav is likely to address a party meeting here on Sunday.

After the Lok Sabha results were declared in May, the RJD leader had remained largely absent from the State, making only brief appearances. The RJD did not win a single seat in the general election.

Pilloried by ruling NDA leaders and reportedly perturbed by the power struggle within the RJD's first family, Mr. Tejashwi's disappearance set off feverish speculation. Despite assurances from top party leadership, he was not present at the party's recent two-day meeting at the home of his mother and former Chief Minister Rabri Devi for a membership drive.

The tug of war between Mr. Tejashwi and his elder brother and party MLA from Mahua, Tej Pratap Yadav, has further fuelled speculation on the issue of party leadership. However, Mr. Tejashwi quietly arrived in Patna on August 22 and plunged headlong into party and political activities. He staged a night-long dharna with milkmen at the Patna railway station where the district administration had demolished their structures.



Tejashwi Yadav

Mr. Tej Pratap joined him and told NDA leaders, "Beware! Tejashwi, my Arjun, has come." The next day, Mr. Tejashwi reached his constituency Raghupur in Vaishali district and kicked off a party membership drive.

'Modi has completed the integration of J&K into India'

Shah says of dilution of Article 370 made it possible

ABHINAV DESHPANDE
HYDERABAD

Home Minister Amit Shah on Saturday said former Deputy Prime Minister Sardar Vallabhbhai Patel successfully merged more than 600 princely states into the Union of India but, because of Article 370, the complete integration of Jammu and Kashmir was not completed.

"However, Prime Minister Narendra Modi-led NDA government has completed the integration of Jammu and Kashmir into India by scrapping [provisions] of Article 370," he said.

The Minister was addressing the Dikshant parade of IPS probationers of the 2017 batch at the Sardar Vallabhbhai Patel National Police Academy here.

Sardar Patel's efforts

Recalling Sardar Patel's efforts to unite the nation after Independence, Mr. Shah said that when the then Nizam of Hyderabad refused to merge with India, police action played a key role.

"Using force, Patel ensured that the Hyderabad State was merged with India



Amit Shah addressing IPS probationers at the National Police Academy in Hyderabad on Saturday. ■NAGARA GOPAL

Because of Article 370, the complete integration of Jammu and Kashmir was not done earlier

AMIT SHAH
Home Minister

and the full credit goes to the then police action," he said, during his first visit to the premier institution as Home Minister. Mr. Shah told the IPS probationers to protect

the Constitution and recall the oath every day.

A total of 103 probationers, including 11 foreigners and 16 women, passed out of the academy on Friday.

Gaush Alam, allotted to the Telangana cadre, bagged the Prime Minister's Baton and Home Ministry's Revolver for the best all-round IPS probationer award, the BSF trophy for proficiency in outdoor subjects and also the Mehta Cup for studies.

Bahrain honour for Modi

PRESS TRUST OF INDIA
MANAMA

Prime Minister Narendra Modi on Saturday was honoured with "The King Hamad Order of the Renaissance" as he held talks with Bahrain King Hamad bin Isa Al Khalifa on bilateral, regional issues. Mr. Modi is the first Indian PM to visit the country.

gest exporter of crude oil to India.

'Valuable partner'

In an interview to the UAE's official news agency, WAM, Mr. Modi said India found a "valuable partner" in the UAE to achieve its dream of becoming a \$5-trillion economy by 2024-25.

He said the UAE-India relations were "at their best ever" and the UAE's investments in key sectors in India were growing.

"There has been an increasing interest in investments in India in sectors such as renewable energy, food, ports, airports and defence manufacturing. The UAE's investments in infrastructure and housing are being enhanced," he said.

Both countries were working closely to implement the commitment of \$75 billion investment by the UAE in India, he said.



RLSP chief Upendra Kushwaha. ■PTI

'Nitish should apologise to people, quit'

PRESS TRUST OF INDIA
PATNA

Former Union Minister Upendra Kushwaha on Saturday said Chief Minister Nitish Kumar should apologise to the people of Bihar for not doing "anything" in the past 14 years and tender his resignation.

The Rashtriya Lok Samata Party chief alleged that Mr. Kumar has failed to deliver on all fronts, especially on the law and order situation. "A series of murders have been committed in different parts of the State. It seems that criminals have a free run in Bihar. People are living under constant fear... The situation is worse than what it was during 15 years of that regime [of the RJD]," Mr. Kushwaha said.



AFP

The concussion test

Why was Steve Smith substituted in the second Ashes Test? What are the rules for a head injury in cricket? What happens in other sport?

SRINIVASAN RAMANI

The story so far: Australia's Steve Smith, batting on 80, was floored by a bouncer from England pacer Jofra Archer in the first innings of the second Ashes Test in London on August 17. Smith was hit on the back of his neck close to his head at a spot that was not protected by the helmet, and fell down immediately after taking the blow. Dazed, he had to leave the crease. Although he came back to bat later in the innings (he eventually got out on 92), he was withdrawn from the game and was substituted by Marnus Labuschagne who batted in the second innings. Labuschagne was the first ever "concussion substitute" and in fact, the first ever substitute player to bat in a Test innings.

What are the new rules on 'concussion substitution'?

Following the death of Australian cricketer Phillip Hughes, who was hit on the head by a bouncer in a Sheffield Shield (Australian domestic cricket tournament) first class match in 2014, there had been several calls for "concussion substitutes" who could replace injured players and also bat in the game.

After a two-year trial in domestic cricket, the International Cricket Council (ICC), in July 2019, approved player replacement in the case of concussion or suspected concussion in all formats of international and first class cricket worldwide. The rule, implemented since August 1, 2019 says that following a medical determination by a team representative in the case of an on-field concussion, the injured player will be substituted by a like-for-like replacement approved by the match referee.

In Smith's case, Labuschagne was the like-for-like replacement as a middle-order batsman at the exact same position as Smith's (No 4 in the Australian batting order). The ICC rules also specify that in case a like-for-like replacement is not available, the match referee may choose not to allow a substitute under the circumstances. Substitutes of this kind are only allowed if there are injuries due to concussions.

What is a concussion? How are concussions medically determined?

The 4th International Conference on "Concussion in sport" held in Zurich in 2012, came up with a consensus statement. It defined concussion as "a brain injury... that may be caused either by a direct blow to the head, face, neck or elsewhere on the body with an 'impulsive' force transmitted to the head". Concussion is also termed as a

"mild traumatic brain injury" and temporarily affects brain functioning. Its symptoms could include loss of consciousness, memory loss, headaches, difficulty with thinking, concentration or balance, nausea, blurred vision, sleep disturbances and mood changes.

Following the death of Australian cricketer Phillip Hughes, there have been several calls for 'concussion substitutes'. This July, the International Cricket Council approved player replacement in the case of concussion

Concussions tend to bring about a rapid onset of temporary impairment of some neurological functions, and could

resolve spontaneously or evolve over a number of minutes to hours. Most concussions resolve in a short period (a week to 10 days).

The ICC has recognised that "concussion is a potentially serious injury that may have both short (increased musculoskeletal and brain injury risk) and long-term (chronic traumatic encephalopathy, dementia and mental health issues) health risks", and therefore "requires a conservative management approach".

Do other sports also follow a protocol?

While several sport have had concussion protocols in place in recent years, the ICC's concussion management guidelines follow the Berlin Concussion Consensus, which sets the benchmark for such guidelines. A number of various sporting bodies representing various disciplines have instituted specific concussion-related protocols and guidelines within the settings and rules of their sport. These include American football, Australian football, basketball (organised by the National Basketball Association, or NBA), ice hockey, rugby, football among others.

The guidelines look at ways to assess if the player has suffered a concussion and to grade the injury quickly and offer immediate remedies. They also include the need for a graded return to play based on the symptoms suffered and the scale of the injury. The ICC says a player must be immediately withdrawn from the field of play if he/she is seen to suffer from typical concussion symptoms and diagnosed appropriately by a trained medical official. The player should also be tested for structural brain injuries if he/she suffers signs of serious brain injury.

The ICC's guidelines also mandate that a typical graded return to play for cricket would include these steps – 24 hours relative rest, light aerobic exercise, light training, full training and being cleared to compete (via a formal medical clearance). If at any of these stages, the symptoms return, the player drops back an exercise level. In case the symptoms persist for three weeks or more, the player will be subject to a neuropsychological assessment and tested for structural brain damage.

Other sports also follow such graded testing and return protocols. Besides these, the NBA, for example, has instituted mandatory education of concussion knowledge to players, coaches and medical staff.

Will India change its 'No First Use' policy?

What will happen if the country's nuclear posture is revised in the 'most dangerous place in the world?' What about the stand on deterrence?

NARAYAN LAKSHMAN

The story so far: Since conducting its second nuclear tests, Pokhran-II, in 1998, India has adhered to a self-imposed commitment to 'No First Use' (NFU) of nuclear weapons on another country. However, last week, on August 16, Defence Minister Rajnath Singh dropped a hint that in the future, India's NFU promise "depends on circumstances."

When did India's N-weapons journey begin?

India embarked on the path of nuclear weapons development after its face-off with China in the 1962 war, followed by China carrying out nuclear tests in 1964 and in the subsequent years. In 1974, under Prime Minister Indira Gandhi, India conducted its first nuclear tests, Pokhran-I, dubbed as a "peaceful nuclear explosion". Despite more than two decades of international pressure that followed to make India abandon its pursuit of nuclear weapons, India again carried out a test in May 1998, Pokhran-II, involving a fission device, a low-yield device, and a thermonuclear device. Its successful execution meant that India had the ability to introduce nuclear warheads into its fast-developing missile programme. A fortnight after the Pokhran-II tests, Pakistan also carried out similar tests, confirming progress with its nuclear weapons programme; since that time its nuclear arsenal has expanded rapidly. In 1999, India came out with an explicit nuclear doctrine that committed, among other things, to NFU – that is it would never carry out a nuclear first-strike. This doctrine emphasised "minimal deterrence, no first use and non-use against non-nuclear weapon states", in the words of former National Security Adviser Shivshankar Menon. The NFU promise thus went together with credible minimum deterrence (CMD).

What does CMD mean for the Indian nuclear doctrine?

Credible minimum deterrence does not imply indefinite expansion of the nuclear arsenal; rather it is built on an assured second-strike capability. This implies that in the event of another nation carrying out a first nuclear strike of any magnitude against India, India's nuclear forces shall be so deployed as to ensure survivability of the attack and the capability to carry out a massive, punitive nuclear retaliation aimed at inflicting damage that the aggressor will find "unacceptable". Additionally, CMD requires a robust command and control system; effective intelligence and early warning capabilities; comprehensive planning and training for operations in line with the strategy; and the will to employ nuclear forces and weapons.

Currently, the Nuclear Command Authority is responsible for command, control and operational decisions on nuclear weapons; specifically it is the Cabinet Committee on Security and ultimately the office of the Prime Minister of India, that is responsible for the decision to carry out a nuclear attack.

Why might the NFU policy be revisited?

Regional geopolitical realities have a significant bearing upon India's NFU commitment, to the extent that the CMD is what the "enemy" believes deterrence to be, and

Is the WTO becoming a new battlefield?

Why is the U.S. President critical of the organisation? Where do India and China stand in this confrontation?

PRASHANTH PERUMAL J.

The story so far: U.S. President Donald Trump earlier this month attacked the World Trade Organization (WTO) for allowing countries such as India and China to engage in unfair trade practices that affect American economic interests. While addressing a gathering in Pennsylvania, Mr. Trump took issue with the "developing country" status enjoyed by India and China at the WTO. He argued that these countries are not developing economies, as they claim to be, but instead grown economies that do not deserve any preferential trade treatment from the WTO over developed countries such as the U.S.

What is the "developing country" status?

The "developing country" status allows a member of the WTO to seek temporary exception from the commitments under various multilateral trade agreements ratified by the organisation. It was introduced during the initial days of the WTO as a mechanism to offer some respite to poor countries while they try to adjust to a new global trade order marked by lower barriers to trade. Countries such as India and China, while seeking exception from various WTO agreements, have argued that their economic backwardness should be considered when it comes to the timeline of implementation of these agreements. The issue of farm subsidies, for instance, is one over which rich and poor countries have had major disagreements. The WTO, however, does not formally classify any of its members as a developing country. Individual countries are allowed to unilaterally classify themselves as developing economies. So, as many as two-thirds of the 164 members of the WTO have classified themselves as developing countries.

How do countries such as India and China benefit from the special status?

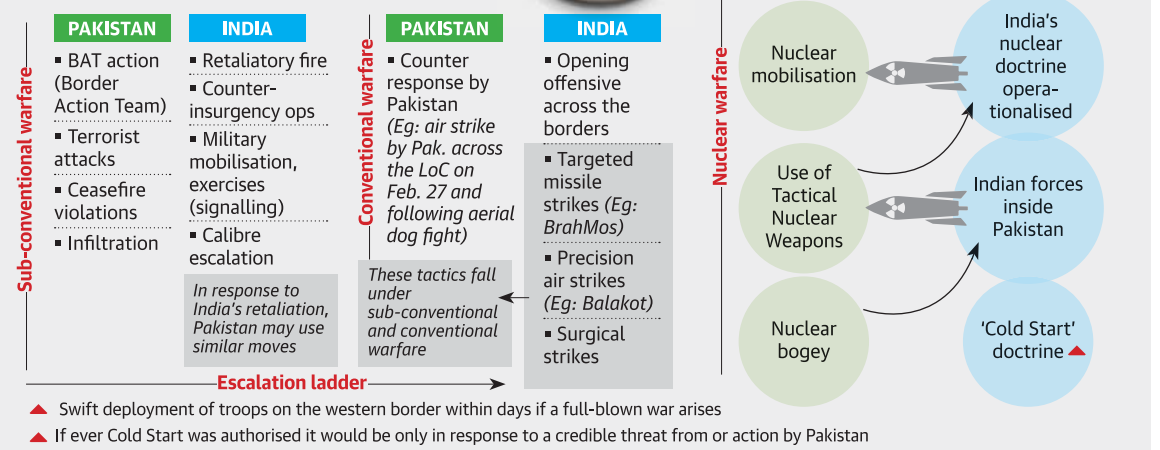
The WTO was envisaged as an international trade body to help foster more trading in goods and services between nations by lowering various barriers to trade such as tariffs, subsidies and quotas. Towards this end, several trade agreements have been ratified over the years under the WTO.

Developing countries such as India and China, however, as earlier mentioned, can seek to delay the implementation of these WTO agreements owing to their disadvantaged economic status. They can continue to impose tariffs and quotas on goods and services in order to limit imports and promote domestic producers who may otherwise be affected adversely by imports that are lower in price or better in quality. India, for instance, subsidises agriculture heavily in the name of food security in order to protect its farmers. While local producers may be protected by protectionist barriers such as tariffs, consumers in India and China will have limited access to foreign goods.

Is the U.S. justified in criticising the WTO?

Nuclear escalation ladder

India's 'No First Use' policy states that nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere. A look at the India-Pakistan escalation ladder, at the top of which is a nuclear war



their belief is manifested in their actions. After the 1998 nuclear tests in India and Pakistan, the CMD was established in the sense that in the following decade, including the aftermaths of the attack on the Indian Parliament in 2001 and the Mumbai terror attacks in 2008, neither country felt inclined to instigate all-out war.

However, since that time, the deterrent effect of India's arsenal seemed to have less effect in one significant aspect: Pakistani officials started speaking out about their country's development of tactical nuclear weapons, or "theatre nukes", which had a lower yield but could still

Regional geopolitical realities have a significant bearing upon India's NFU commitment. Credible Minimum Deterrence is what the 'enemy' believes deterrence to be, and their belief is manifested in their actions

inflict enough damage to blunt a conventional attack. It is surmised that Pakistan's talk of tactical nuclear weapons might have emerged as a counter to speculation that India might have developed the "Cold Start" doctrine. This is a purported classified plan for a conventional military attack by Indian forces on Pakistani soil, likely as a response to a prior sub-conventional attack from across the

border (such as a state-sponsored terror-attack). In this context, in 2013, Shyam Saran, convener of the National Security Advisory Board, said: "India will not be the first to use nuclear weapons, but if it is attacked with such weapons, it would engage in nuclear retaliation which will be massive and designed to inflict unacceptable damage on its adversary. The label on a nuclear weapon used for attacking India, strategic or tactical, is irrelevant from the Indian perspective."

However, there may be some concerns with this idea that India will retaliate massively even if Pakistan uses tactical nuclear weapons – possibly on Indian forces operating on Pakistani soil – against it. First, this strategy would take both countries back into the old-world deterrence paradigm of "mutually assured destruction", because any surviving forces in Pakistan after India's

retaliation would surely launch a devastating attack against targets across India.

Second, India may have more to gain by pre-emptive action. This is the question that analysts Christopher Clary and Vipin Narang have studied, and they argue that one option under consideration could be for "a hard counterforce strike against Pakistan's relatively small number – perhaps several dozen – strategic nuclear assets on land (and eventually at sea) to eliminate its ability to destroy Indian strategic targets and cities. Such a strategy would be consistent with India's doctrine of massive retaliation – massive retaliation strategies need not be countervalue – while avoiding the credibility issues associated with a countervalue targeting strategy following Pakistan's use of nuclear weapons on the battlefield."

Will we see India's nuclear doctrine changing to accommodate these realities?

The simple answer: unlikely. As Mr. Clary and Mr. Narang argue, India's adoption of potentially pre-emptive "counterforce options" – i.e. to eliminate Pakistan's strategic nuclear weapons when it deems the risk of a Pakistani first-strike to have crossed a critical threshold – may require no explicit shifts in its declared nuclear doctrine. In fact, remaining silent on this subject might be calculated as a strategic advantage for India as the country would be assuming deliberate nuclear ambiguity. The downside is that New Delhi remaining silent on this, except for occasional hints – such as what the Defence Minister tweeted recently – might compel Pakistan to adjust its nuclear posture accordingly, based on a calculation that India might be willing to carry out a counterforce attack and thereby eliminate the Pakistani nuclear threat entirely. This in turn risks fuelling an arms race or more unstable nuclear weapons deployment patterns in Pakistan.

The Balakot strikes that followed the Pulwama attack (both in February 2019) demonstrate that the Narendra Modi government is not shy of taking cross-border military action. If another sub-conventional attack, say a terror attack, occurs on Indian soil anytime soon, these theories will likely be tested. What remains unclear is how high up the escalation ladder both countries will be willing to go.



GETTY IMAGES/ISTOCKPHOTO

While the "developing country" status was supposed to help poor countries ease gradually into a more globalised world economy, it has had other unintended effects. Since the WTO allows countries to unilaterally classify themselves as "developing", many countries have been happy to make use of this freedom. Even many developed economies such as Singapore and Hong Kong which have per capita income levels higher than the U.S., have made use of the provision to classify themselves as growing economies. Further, countries such as China justify that while their per capita income level has increased many-fold over the last few decades, these are still far below that of high income levels in countries such as the U.S. Thus, Mr. Trump may have a prima facie case in urging the WTO to address the issue of how countries arbitrarily classify themselves as "developing" to justify raising trade barriers. This is, however, not to say that WTO rules always work to the advantage of developing countries alone.

Developed countries such as the U.S. have tried to force poorer countries to impose stringent labour safety and other regulations that are already widely prevalent in the West. These regulations can increase the cost of production in developing countries and make them globally uncompetitive. Developing countries further view the introduction of labour issues into trade agreements as beyond the scope of the WTO, which is primarily supposed to be an organisation dealing with trade. Many economists also oppose the fundamental argument of poorer countries that low per capita income levels justify their decision to raise trade barriers. They argue that free trade benefits all countries irrespective of their income levels. In fact, they argue that protectionist trade barriers impede the transition of developing economies to higher income levels. The developing country status may thus simply be a false pretext to justify protectionism.

What lies ahead?

Mr. Trump's criticism of the WTO is seen by many as the opening of a new front in his trade war against China. Earlier, the U.S. President had termed China as a "currency manipulator" for allowing the yuan to depreciate against the dollar. China and the U.S. have also been slapping steep tariffs on imports from each other since early last year. China's developing country status at the WTO gives Mr. Trump yet another opportunity to attack China. Since developing countries are likely to

Initially envisaged as a global body to promote free trade, the WTO has deteriorated into a forum where competing governments fiercely try to protect their narrow interests

oppose any efforts to stop them from protecting their domestic economic interests, global trade rules are unlikely to experience any drastic reform any time soon. Further, ahead of the next ministerial-level talks of the WTO scheduled to be held in Kazakhstan next year, the inability of the WTO to rein in global trade tensions has raised questions about its relevance in today's world.

This is particularly so given that global tariff rates over the years have dropped more due to bilateral trade agreements rather than due to multilateral trade agreements brokered at the WTO.

Further, the dispute resolution mechanism of the WTO, which can pass judgments on disputes, lacks the powers to enforce them as the enforcement of decisions is left to individual member states. While initially envisaged as a global body to promote free trade, the WTO has now deteriorated into a forum where competing governments fiercely try to protect their narrow interests.

CAPSULE



For new pain relievers
Researchers have discovered a scorpion toxin that targets the 'wasabi receptor.' The wasabi receptor is embedded in sensory nerve endings throughout the body. Because the toxin triggers a pain response, scientists think it can be used as a tool for studying chronic pain and inflammation, and may eventually lead to the development of new kinds of non-opioid pain relievers.



How brain senses an itch
Researchers have discovered how neurons in the spinal cord help transmit itch signals to the brain. The mechanical itch sensation is distinct from other forms of touch and it has a specialised pathway within the spinal cord. The findings could help contribute to a better understanding of itch and could lead to new drugs to treat chronic itch.

IIT Jodhpur fabricates a highly sensitive hydrogen sensor

The sensitivity of the sensor is 74% when hydrogen gas concentration is 100 ppm

R. PRASAD

A sensor that can detect hydrogen gas even when present at extremely low concentration of 1 part per million (ppm) has been developed by researchers at the Indian Institute of Technology (IIT) Jodhpur in collaboration with IIT Hyderabad. The sensor has 30% sensitivity to detect hydrogen at 1 ppm concentration and as high as 74% sensitivity when the concentration of the gas is 100 ppm. It takes about 25 seconds to detect hydrogen.

Hydrogen gas is a pollution-free, renewable source of energy and is seen as a fuel of choice in the future. However, hydrogen is highly explosive and flammable in nature. It is a small molecule and can readily mix with air but detecting hydrogen gas leakage become quite difficult particularly as it is colourless and tasteless. So a sensor that can detect it even when present at very low concentration becomes essential. And this is where the current work becomes important.

Carbon nanofibres with minute pores are decorated on the zinc oxide semiconductor. The carbon nanofibres increase adsorption of oxygen



High sensitivity: The sensor has 30% sensitivity to detect hydrogen at 1 ppm concentration.

on the surface of the semiconductor. More oxygen adsorbed would mean the number of electrons available for conduction is reduced leading to increased resistance.

Hydrogen reacts with the adsorbed oxygen (to produce water molecule) thereby making more electrons available for current conduction.

"Since more oxygen is adsorbed there are more active sites where hydrogen can react with oxygen and reduce the resistance," says Vijendra Singh Bhati from the Department of Physics at IIT Jodhpur and first author of a paper published in the journal *Sensors & Actuators: B. Chemical*. "In the presence of hydrogen the resistance reduces drastically leading to more current flow, thus suggesting hydrogen gas leakage. When hydrogen is removed, the resistance goes back to the initial state," says Prof. Mahesh Kumar from the Department of Physics at IIT Jodhpur and the corresponding author of the paper. "The change in resistance is a function of the concentration of nanofibres loaded on the zinc oxide semiconductor, temperature and the concentration of hydrogen

gas." The zinc oxide by itself has only 44% hydrogen sensitivity while it is a meagre 3.5% for carbon nanofibres. But when 0.2 weight percentage of nanofibres is loaded onto the semiconductor the sensitivity is maximum at 74%. Any increase in the concentration of nanofibres actually leads to a decline in the sensitivity.

Oxygen gets adsorbed both on zinc oxide and nanofibres. "Tiny pores made on the carbon nanofibres increase the surface area for oxygen to get adsorbed and enhance the sensitivity," says Prof. Chan-

dra Shekhar Sharma from the Department of Chemical Engineering at IIT Hyderabad and co-author of the paper.

According to Prof. Sharma, a polymer and a block polymer were blended together and electrospun to produce nanofibres. "The block polymer has two monomers and is polymerised. It is possible to dissolve one monomer selectively by exposing it to UV radiation. When one monomer degrades on UV exposure it leaves behind micropores," explains Prof. Sharma. e sensor can detect hydrogen only when the temperature is moderate – 150 degree C. "High temperature is needed to activate the chemical reaction between hydrogen and oxygen," says Prof. Kumar. "Other hydrogen sensors require about 250 degree C to activate the chemical reaction. We are able to achieve the same at 150 degree C."

The researchers are able to activate the chemical reaction at a relatively lower temperature as carbon nanofibres are used. "The nanomaterial increases the surface area and acts as a catalyst to reduce the activation energy," says Bhati.

The next goal is to develop a prototype by integrating the sensor with a microheater.



For a purpose: Tree-dwelling monkeys have long tails in order to balance themselves.

Evolution and the loss of tail in us

A tail that is not used is just another limb that needs energy to grow



SPEAKING OF SCIENCE

D. BALASUBRAMANIAN

A team of bioengineers for Keio University in Japan have come out with what looked first glance as a practical joke, but upon reading further, we find that they have devised a wearable robotic tail for needy people. A tail, and for humans? The details of the tail, named Arque and its use to assist the elderly with mobility, preventing them from falling and to maintain balance while climbing stairs and so on, can be read in the article by Nancy Cohen in TechXplore.com of August 7, 2019, and the YouTube display of "Arque: Artificial Biomimicry-Inspired Tail for Extending Innate Body Functions" explains the uses of this man made tail; please see <https://www.youtube.com/watch?v=Tr1-lhEhXXQ>. Besides helping needy senior citizens, Arque can also help labourers while moving heavy loads, climbers who want to get on to high cliffs and so on.

If Arque type artificial tails become necessary as some of us age and have locomotor difficulty, why did nature not keep the tail as part of the anatomy of humans (and our close cousins such as the bonobos, chimpanzees and gorillas)? Most animals in sea as on land have tails -long or short- and the tails perform important functions. As Dr David Young of the University of Melbourne, Australia points out, the tail in an animal performs a variety of functions, apart from swatting flies and bugs. Fish uses its tail to steer along the water, crocodiles and camels store excess body fat in their tails as an energy reserve, and tails in mammals act as a counterbalance to the head and assist in running. Fast runners have long tails. Tree-dwelling monkeys have long tails in order to balance themselves.

Why did we lose it?

As we evolved from walking on four legs (quadrupeds) to two feet (bipeds), the tail actually became more of a hindrance than a help. As Hannah Ashworth points out in the BBC Science Focus Magazine (sciencefocus.com), a tail that is not used is just another limb that needs energy to grow (and another thing for predators to grab. (Re: the last point, the lizard has learnt to simply drop its tail when it faces attack, to regrow it later at leisure). We bipeds walk straight, with our bodies aligned with a center of gravity that passes through our spine to our feet, without needing a tail to counterbalance the weight of our head. She further states: "natural selection would have favoured those of our ancestors that had smaller tails when they moved from the forest to the savannah.

Over the course of the next few million years, it dwindled to nothing. (There are other distinct differences between us and the great apes. Dr. Kevin Hunt of Indiana University thinks humans' ancestors stood upright in order to reach vegetation in low-hanging tree branches. "When Africa started getting drier about 6.5 million years ago, our ancestors were stuck in the east part, where the habitat became driest. Trees in dry habitats are shorter and different than trees in forests. Thus, our ancestors stood up on both legs in the scrubby, dry areas of Africa, to pick up food from the trees. Chimps in the forests did not". They walk both on two legs and when needed, on all fours. This habit and bipedalism also made our noses different (stick up) from those of the great apes. Further, as Darwin pointed out how the simple act of standing up made all the difference in separating man from ape. One word: tools. "Once we became bipedal, we had hands to carry tools around. We started doing that only 1.5 million years after we became bipedal," Hunt explains). Moving from a quadruped into a biped has had such biostructural, energetic and functional consequences.

Actually, we still have a tail during the first four weeks of our lives in the womb, but then its gets absorbed by the 7th week and we are just left with the coccyx, at the base of our spine, which serves as a muscle attachment point". Apes notably such as chimpanzee, gorillas also have coccyx.

Not completely lost

What if this absorption goes wrong and the tail actually starts to form in infants? Fortunately this is a rare and so far these have been no more than 40 cases reported to date across the world. The tail is no longer than 6 inches at best in Indian alone, there are just about 3 reports of babies born with tiny tails in the lumbar and several regions of the spine a total of 8 infants. The most recent case has been reported in 2017. All these neonates were operated with success, and have grown in health and are normal with no neurological or other effects. Analysis of the removed tail material showed it to be made of adipose tissues, collagen fibers, some nerve fibers, blood vessels and ganglion cells but no bones. Preliminary gene-based analysis of the tail material showed that the genes controlling tail development might be from the Wnt family of genes. Biological research - involving genetic analysis, cell biology and inhibitor search- on this "rare disorder" to find the cause and solutions will be of great value to the family.

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Understanding clouded leopards and their habitats

ASWATHI PACHA

Before scrolling the internet for funny cat photos and videos, meet clouded leopards belonging to the same family whose cuteness and grandeur can give your house cat a tough competition. Named after the cloud-shaped patterns on its skin, these medium-sized cats are typical rain-forest dwellers but can also be found in the drier forests of Southeast Asia. Now a research paper published by over 20 researchers from across the globe has helped understand their habitats, migration corridors and laid out the conservation strategies.

By using over 3,000 trap locations spread over 45 sites, the model looked at nine countries (Bhutan, Nepal, India, Peninsular Malaysia, Thailand, Vietnam, Cambodia, Laos, Myanmar) and suggested that only 9.44% of the studied region was 'highly' suitable for clouded leopards (*Neofelis nebulosa*).

In India, the Dampa tiger reserve in Mizoram was chosen as the study site. Dampa has been much in the news lately as one of the tiger reserves where tigers were estimated to be zero as part of the latest all India tiger estimation exercise.

"However, it is an incredible area that supports a very high diversity and numbers of almost every other species expected in this ecosystem. It receives funding from the National Tiger Conservation Authority on an annual basis



Critical link: Clouded leopard presence was positively associated with forest cover and rain.

which helps it maintain over 100 daily wage forest guards, and conduct patrolling, which perhaps allows sustain this incredible biodiversity," says Priya Singh, a Bangalore-based independent researcher involved with this study published in *Diversity and Distributions*. "With over 350 sq. km. of prey rich forests, very low human presence, and a terrain that is very hard to access, which generally works acts as a deterrent to human movement, aids the survival of clouded leopards here."

An interesting find was that Dampa had one of the highest population densities of clouded leopards, from the sites surveyed. In 2018, India added clouded leopards to its Recovery Programme for Critically Endangered Species to aid more research and strengthen conservation efforts.

It was also noted that when the closed-canopy forest cover declined by just 35%, the clouded leopard detection dropped by 25%. This shows that clouded leopard presence was positively associated with forest cover and rain, suggesting that deforestation and reduction in rainfall patterns as a result of climate change may negatively influence clouded leopard distributions.

"We are trying to understand how land-use and development policy can be adapted to facilitate coexistence of people alongside clouded leopards as umbrellas for wider nature," said Prof. David W. Macdonald from the Wildlife Conservation Research Unit, Department of Zoology at the University of Oxford in an email to The Hindu. He is the corresponding author of the study.

Heart attacks halved by polypill

AFP

A cheap, once-a-day pill combining aspirin with drugs that lower blood pressure and cholesterol cuts cardiovascular disease as a whole by a third, and heart attacks by more than half, researchers report in *The Lancet*.

In clinical trials, the polypill was especially effective among people with no history of cardiovascular disease, reducing the number of severe events by 40%. For those with a history of heart problems and strokes, the drug combo was only half as effective.

The polypill concept was first proposed more than 20 years ago as a simpler, cost-effective approach to treating cardiovascular disease. Currently, patients are typically prescribed one or more drugs to lower blood pressure along with a statin, which holds lipids such as fatty acids in check. Aspirin, an analgesic, has blood thinning properties.

"The more tablets people have to take, the less they comply in the long-term," noted Kausik Ray, a professor in public health and Imperial College London not involved in the study.

About a third of patients stop taking their meds as early as 90 days after a heart attack, according to earlier research. But despite its obvious potential, the polypill had yet to be tested on a large number of people over a long period of time.

Scientists led by Reza Malekzadeh from the Tehran University of Medical Sciences recruited nearly 7,000 men and women, aged 50 to 75, living in rural Golestan, a province in Iran.

The participants were divided into



Hard evidence: Blood pressure did not differ much but LDL cholesterolerul did.

two groups. While one was a control arm, the other also got a daily polypill from 2011 to 2013. Doctors monitored compliance with the drug regimen, and then tallied the number of strokes and heart attacks across each cohort over the next five years.

Crucially, adherence was significantly higher with the all-in-one pill. Compared with the lifestyle group, the polypill cohort had 34% fewer adverse events. Results were similar for men and women.

Blood pressure did not differ much, but "bad" (LDL) cholesterol levels were lower in the group taking medicines. "Now we know that a fixed-dose polypill can achieve clinical benefits in practice," Malekzadeh said in a statement.

"But the polypill is not an alternative to a healthy lifestyle and should be combined with physical activity, a healthy diet, and smoking cessation."

Other researchers not involved in the study said the findings could be a game changer, especially in developing nations.

IIT-H develops waterproofing material using fly ash

Stearic acid-coated fly ash surface can be made to behave like rose petals or lotus leaves

R. PRASAD

Researchers at the Indian Institute of Technology (IIT) Hyderabad have developed a cheap waterproofing material by coating fly ash, a waste by-product from coal-based thermal power plants, with stearic acid, which is a surfactant. While fly ash is extremely water-loving (hydrophilic), it turns into a highly water-repelling surface once coated with stearic acid.

The stearic acid has a hydrophilic part called the head and hydrophobic portion called the tail. While the head of stearic acid which is hydrophilic binds to fly ash particles, the water-repelling tail remains free. Numerous free hydrophobic tails of stearic acid makes the fly ash surface water repellent.

Fly ash varies in size from 100 nanometres to a few mi-

croons and can thus provide surfaces with different roughness based on the size of the particles chosen. The stearic acid-coated fly ash surface can be made to behave like one of the two naturally occurring water-repelling materials – rose petals or lotus leaves – by the varying the surface roughness.

In the case of a rose petal the surface repels the water but at the same time the structure of the petal ensures that the water droplets adhere to it. Thus, even when inverted, water droplets do not fall down. On the other hand, in the case of the lotus leaf, water droplet rolls off easily.

"When we used particles of more or less uniform size, the inter-particle space is more and water penetrates and sticks to the surface like in the case of a rose petal and remains adhered to the surface



Waste no more: A simple process of particle distribution was used to achieve the two types of water-repelling.

even when we tilted it to 90 and 180 degrees," says Dr. Atul Suresh Deshpande from the institute's Department of Material Science and Metallurgical Engineering and corresponding author of a paper published in *Chemistry Select*.

The topography changes completely when fly ash particles of different sizes are used.

The smaller particles tend to fill the gap between the larger ones thus resulting in a tighter packing with very little gap between particles. "Air pockets tend to form when the gap between particles reduces making it difficult for water to get into the gaps. Water droplets are suspended on top of the air pockets and so has less

By using a combination of stearic acid and surface roughness we were able to achieve superhydrophobicity

Urbashi Mahanta

adhesion to the surface. So when the surface is tilted slightly (5 degree) the droplets tend to roll off easily," says Dr. Mudrika Khandelwal from IIT Hyderabad and a co-author of the paper.

"By using a combination of stearic acid and surface roughness we were able to achieve superhydrophobicity (where the water contact angle is more than 150 degree)," says Urbashi Mahanta, a PhD student from IIT Hyderabad and first author of the paper. "We used a simple process of particle distribution to achieve the two types of hy-

drophobicity."

The extent of hydrophobicity increased in both surfaces when the drying temperature was increased from 60 degree C to 80 degree C. The melting point of stearic acid is over 69 degree so when heated to 80 degree C the surfactant melts leading to better coverage and therefore smoother surface compared with samples treated to 60 degree C. Samples with tight and loose packing when treated to 80 degree C showed more hydrophobicity. The stearic acid-coated fly ash can be used as a waterproofing material. Owing to its hydrophobic nature, the surface can be easily cleaned. One can use an adhesive to apply the stearic acid coated fly ash on a surface," says Dr. Deshpande.

More work is needed to test the mechanical and chemical durability of the fly ash waterproofing material.



Friends and nations

ASHU PRAKASH

A few years ago, as an undergraduate student at the Indian Institute of Technology, Kanpur, I went to Russia on a research project. I was excited about going aboard, performing research and making friends from all over the world.

My project was in the Department of Physics and Higher Mathematics at the National Research Tomsk Polytechnic University in Siberia. It was winter, and the temperature used to fluctuate between -40 degrees Celsius and 0. Rarely would I go out of my dormitory, except to the university library, office or shop.

The dormitory on Usova Street in Tomsk had people from all over the world. After a few days of staying, I heard a group of people talking in Hindi. I joined them out of curiosity, and they warmly accepted me into their group. They were mostly post-doctoral researchers or MS students from Pakistan.

Among them, Umair became a good friend. We used to talk about our research projects, Russian language and many times, the border disputes between India and Pakistan. What I liked about our friendship is that we discussed the border issue rationally. In far-off countries, united by language and culture, Indians and Pakistanis often become friends.

It's been a long time since we talked. The increasing discontinuity in India-Pakistan relationship, mainly after the Pulwama attack on February 14, created a wide hole in the friendship. Earlier we used to crack jokes at each other, often on Kashmir. The disputes between the two nations have grown to such a level in the past few months that we cannot continue with such banter now.

Ours is more of a confused relationship between two individuals who are torn between being rational and nationalistic (as people define it nowadays by glorifying wars). I don't know his point of view, but I am sure his country's media and politicians would have created a biased view in his mind too as ours have done here. I wish I would see Pakistan and India as friendly neighbours in my lifetime, and I could tease Umair again.

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The magic of MISTAKES

Everyone commits blunders, but the wise learn from them

GEORGE JOHN

A life spent making mistakes is more honourable and useful than a life doing nothing
— George Bernard Shaw

Have you ever learnt from a mistake you have made? Many won't admit doing so. For those who do, there is no need for guilt.

We often make mistakes from taking risks, but some brush them aside and learn from it. With that, they may not make mistakes the next time around.

When entrepreneurs spend time and money trying to avoid failure, the lessons learnt from missteps can be invaluable, making them wiser and ultimately earning them more profit.

While we know the importance of learning from mistakes, the reality is not as easy as it sounds — despite the best efforts, our brains fight us every step of the way by making us rationalise that it

was not a big mistake to start with.

The name of the game
Everyone makes mistakes, but the wise learn from them. Experience is the name of our mistakes and the resulting pain nourishes courage. The hidden magic in every mistake is the learning. To learn from mistakes, we have to first acknowledge that we have made one, but that makes us feel bad about ourselves. To avoid it, we often skirt around the truth, which is a big obstacle and arguably the most important one to overcome.

We often retroactively create positive attributes to a choice we have already made, which is a choice supportive bias and an example of a rationalisation-after-the-event.

Effects of making mistakes are not limited to the psychological level either. When we celebrate after a win, there is a rush of "feel-good" chemi-

cal such as testosterone and dopamine from the brain, giving us a high. With repetition, this neurotransmitter signal morphs the brain's chemical configuration to make the better-trained people feel smarter and more confident.

The dictum "success begets success" makes future winnings more likely and neuroscientists call it the "winner effect", which along with the not-yet-officially-named "loser effect" runs in accordance with Nietzsche's famous adage "That which does not kill us makes us stronger."

The 18th century polymath Benjamin Franklin was being more intuitive than rigorously scientific when he famously defined insanity (as echoed by Einstein) as "doing the same thing over and over expecting a different result". Such persisting attitudes are not a foible because the consequences can be severe.

Neurosciences suggest that the inability to learn from mistakes may lie at the heart of problems such as passive aggression, sub-

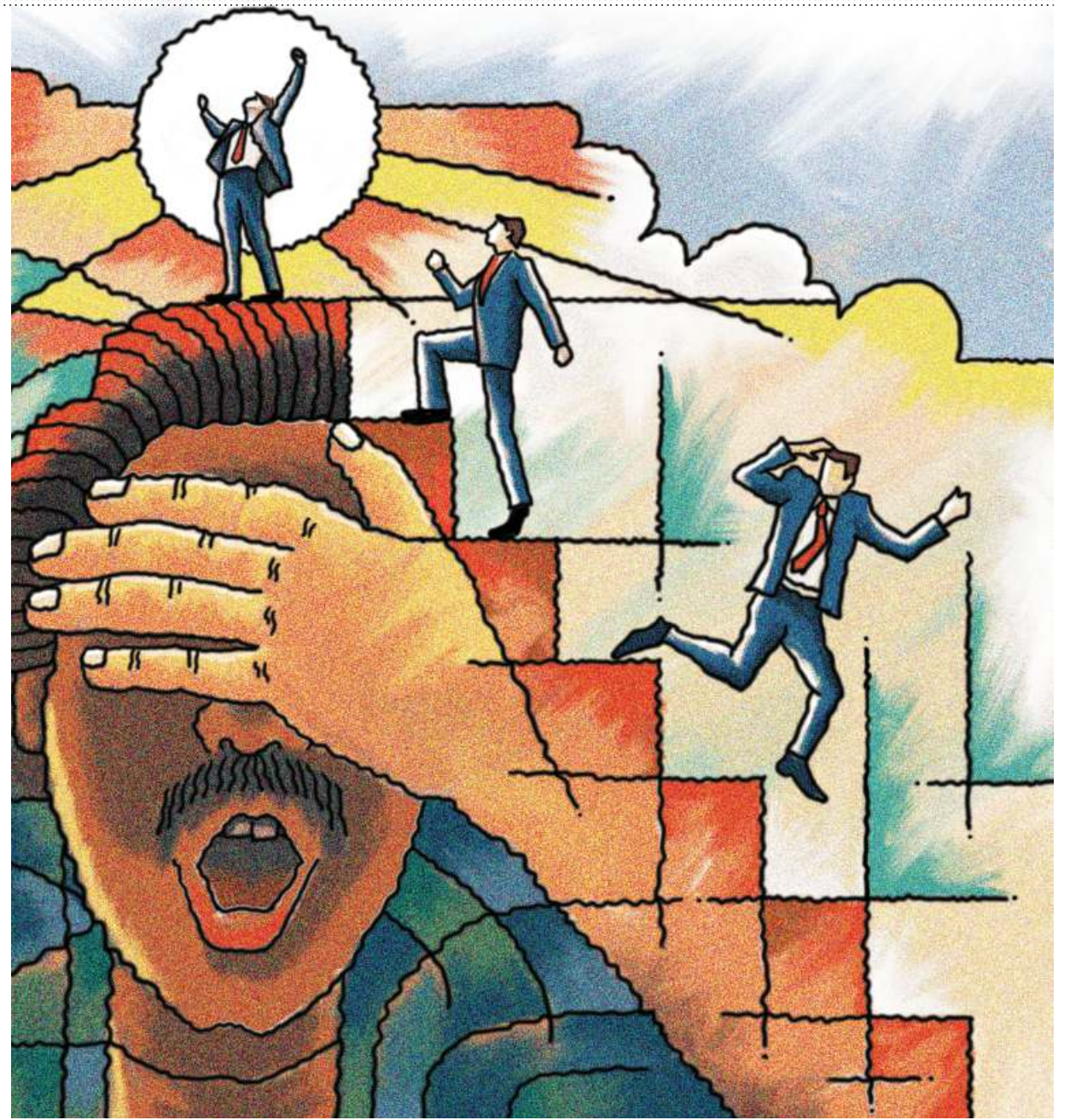


ILLUSTRATION: J.A. PREMKUMAR

stance abuse and certain types of personality disorders. The changes in EEG patterns in some cases suggest that the flaws may be

hard-wired in the brain.

Since science is about measurable and repeatable phenomena, every failed experiment is a learning experience. Failures being more plentiful than successes, mistakes are to be celebrated because of their immense tutorial value.

Ian Wilmut had hundreds of failures before succeeding with cloning Dolly the sheep.

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Cut and run! The bore is nigh

How to escape the self-important chatterbox and how not to be one

JAIRAM MENON

A bore is almost always someone else. It's the neighbour who drops in for a chat and overstays the welcome. It could be the babbar at a function who stands between you and the cocktails. Or it may be an uncle whose incessant chatter and adhesive company make you wistful for the delights of solitary confinement.

Rarely if ever does it strike us that somewhere along the course of evolution, we could have become prize bores ourselves.

The older we get and the higher we climb up the social or professional ladder, the more careful we need to be. Granduncles, aunts, bosses and men and women of high stature command the uncomplaining attention of their relatives and subordinates, and are unlikely to be called out and candidly told that they are getting insufferable.

Bore alert
So, here's a "bore alert", a ready reckoner that you are perhaps unwittingly but unremittably taxing the patience of your friends and companions.

The first step is to run a check on our ego (many

bores are egoists in mufti). A pumped-up sense of self-importance prevents us from realising that others may not be dying to learn of the celebrities we have rubbed shoulders with, the classics we have visited, the hearts we have won and the feats of derring-do of our youth... If and when people are eager to know our life's highlights, they will step up and say so, and we can promise them an autobiography. Until such time, it's best to keep our stories to ourselves.

Poor skills
Not all bores, however, have king-size egos. I know of self-effacing men becoming champion bores because they simply don't know what to talk about. When in company, the need to say something — anything — compelling, and therefore, they make feeble attempts to fill the void with dull bits of this and that.

If you are in danger of falling into this trap, step back and say nothing. Being known to be the quiet sort is infinitely better than earning a reputation as a bore.

Since one man's passion is another man's poison, not everybody will find the same things boring. So it would

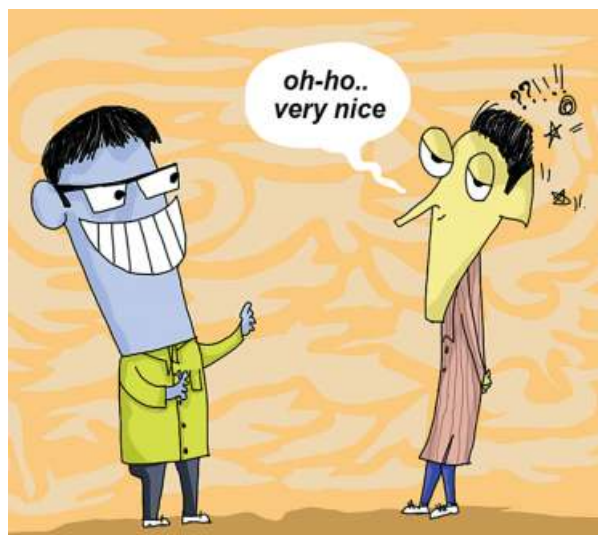


ILLUSTRATION: SREEJITH R. KUMAR

help to know your audiences well before you engage them. Let's say you have a lot to say about Moti, your dear Pomeranian. You launch into a no-holds-barred commentary about how the little fellow can sniff out people in the next suburb, how his way of expressing delight is to roll on the floor, with forelegs pointing to the tubelight, and what a wonderful watchdog he is.

Carried away by the moment, you may even reveal that Moti's toilet training can set benchmarks for the urban middle class — all spellbinding stuff no doubt,

but only for kindred dog lovers. For the rest, you are a person to be wary of.

Audience feedback
Midway through your talk, it makes sense to sensitise yourself to audience feedback. You don't need snores loud and long to signal that you have lost your listeners for good. Keep your eyes open for the more subtle signs — people trying to edge away from your circle, shooting agitated glances at the watch or wearing the distracted air of chaps who wish they are somewhere else.

If any of this happens, you

are running close to the danger mark.

Bad listeners

Bores are poor listeners, and they do not respect the balanced equation that is at the heart of a normal conversation. While you go on and on, and the sole contribution of your listeners is an occasional 'ah', 'oh-ho' and 'very nice', there is obviously so much of give and so less of take that it's time to wring down the curtain. Your final "Okay, goodbye" could well be the sweetest words for many.

If none of this works, there is always the clock. Kim Il-Sung, the late "eternal president" of North Korea, would talk to his subjects for eight hours at a stretch on tractor production. But he was trying his hand at changing the mindset of his people.

You and I have no such noble agenda. As they say, if we haven't struck oil in half an hour, it's time we stopped boring. Social psychologists say learning to be considerate of other people's feelings can shape us into better-adjusted human beings. More to the point, we won't be called a bore.

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A millstone around the country's neck

Traditions are holding back progress

ANCILIN BIJU PALACKAL

Do traditions hold our country back from developing? It's a disturbing question.

Tradition is mainly about thinking about how people lived in the past and using that as a guideline to our lives. But if we keep trying to live in the past, we distance ourselves from the gradual changes arising in society.

Traditions are not static. They are constantly emerging and with time, new thoughts and new ways of doing things evolve into focus.

However, we seldom recognise this within the context of the culture and traditions which continue in our country. People often think that the familiar is better and different is bad, and that perspective needs to be corrected.

I have been convinced that traditions and the Indian belief system create barricades which hold back the nation as a whole from reaching high peaks of success.

The sole reason we are not an advanced country is tradition.

Instead of immediately doing things that would



make humanity better, we stick to tradition, and science gets pushed back as it ruins the barricades of traditions.

In the name of tradition, superficial and unreasonable laws are used to hurt the weaker sections of society and women, many of whom are confined to their homes.

Sadly in India, any attempt made to make way for development by breaking the traditional laws is nipped in the bud by certain mindsets.

To take our beloved country up the slopes to the peak of success, a few of these traditions have to be kept apart as they obstruct the path to success.

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Confession coupe: instant friendships and quick lies

How in the pre-Internet era, train passengers opened their hearts out to strangers in an enabling ambience of anonymity

SHANKAR GOPALKRISHNAN

Before the Internet arrived on the scene, the instant friendships struck inside railway coaches were like a blind date. With no Facebook page or Twitter handle to check each other's background, there was, however, the luxury of anonymity to open your heart to a stranger.

Over the rattle of the rail, family trees were dissected, relatives and their motives scrutinised openly and secrets spilt. It was that easy. You volunteered to buy tea at a station and over each sip, more conversation flowed, and you got closer.

You stayed awake through the night and spoke in bated breath, how he would get down the following day and would be gone forever. Such friendships made journeys memorable, to the extent

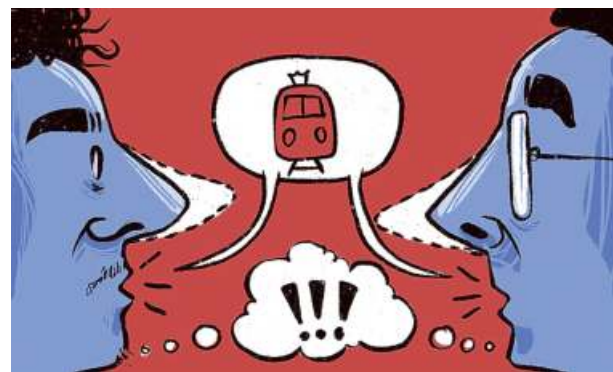


ILLUSTRATION: SATVIK GADE

that even the destination did not matter. At times, addresses were exchanged, but rarely pursued. The joy was in the journey.

Roorkee to Bombay (as it was known then) was a long train journey. Thirty-six hours if the stars aligned well. Often, it took well over 40 hours spread over two nights.

Settling down in the coach, I took an instant lik-

ing to the elderly person on the opposite seat. "I am Arvind. You can call me Arvind Kaka," he said. "What do you do?"

"I am an art student," I said quickly.

"Why are you at Roorkee," he asked me, puzzled. "I was here to attend an art workshop by Vitankar." Kaka's eyes lit up. "You mean Vitankar, that comic-book artist?"

"Yes, he conducts a month's workshop."

That evening, as we shared *rewri* at the Meerut station, it was my turn to quiz Kaka. "I am a theatre artiste. I am part of a troupe. We stage one-act plays, social dramas and mythological adaptations all over Maharashtra," he announced grandly.

As the train meandered its way through Delhi, Kota, Ratlam and Vadodara, we took turns to buy the speciality of each station — *gajak*, *petha*, *chivda* — and endless cups of *matka chai*.

"Unlike the cine star, the theatre artiste has no fixed script. He has to improvise on the spot ... instantly... to strike a chord with the audience. I have learnt that art over the years," Kaka reminisced sagely.

I made Kaka recite his favourite lines in Marathi and

giggled, as he became overly dramatic and disturbed passengers in the adjoining coupe. Kaka wanted me to draw a caricature of his. I dodged his request, but agreed to paint his portrait once I qualified as a complete artist.

Kaka and I were on the adjoining top berths at night. Rocked by the rhythm of the rail, in the dim light of the coach, I lay on my side and faced Kaka. He suddenly broke the silence, "Tomorrow, you will be on your way and I ... mine. I know you will grow up to be a great artist, like Vitankar *saheb*," he smiled gently.

"I hope so. I will remember you Kaka." I did not sleep a wink.

In the morning, the train limped to a halt at Bombay Central. The journey was over. As we got down, my heart was heavy. It was not the

usual lump in the throat that such platform partings bring in its wake.

This was different. "I have a confession to make, Kaka. I am not an art student. I lied. I am just a first year engineering student," I said looking at Kaka straight in the eye. For a split second, Kaka's expression was inscrutable.

The next instant, he threw his head back and laughed heartily. Placing his hand on my shoulder and between spasms of uncontrollable laughter, Kaka managed to say, "I knew that from the beginning! Now, let me tell you this. It will make you feel better. Neither am I a theatre artiste! I am just an insurance agent!" With that, Kaka turned around and walked away into the crowd. I stood on the platform transfixed.

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USHAK MENON

Education and literacy
Literacy cannot make a person wise but education can
PRAGYAWAN

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MOHAN DAS

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Joseph's double lands Gokulam the title

Bagan left to rue a raft of missed opportunities before a scrappy end to the encounter

DURAND CUP

Y.B. SARANGI
KOLKATA
Captain Marcus Joseph's brilliant brace propelled Gokulam Kerala FC to a thrilling 2-1 win over Mohun Bagan and its maiden Durand Cup title at the Salt Lake Stadium here on Saturday.

In a high-voltage final, GKFC thwarted a late challenge from Bagan to be the second club from Kerala to win the crown – the I.M. Vijayan-led FC Kochi was the first to claim the title in 1997.

GKFC gave a good account of its organised approach to gain the upper hand in the opening half.

The touring side exhibited solidity at the back, under the command of Trinidadian Andre Etienne, and some well-crafted moves, ably led by Joseph, upfront.

Golden chance

Sebastian Thangmuansang had a golden chance in the sixth minute, but his left-footer was too weak to beat Bagan custodian Debjit Majumder.

Amid tough tackles, Bagan managed some free-kicks and corners but hardly came close to scoring a goal.



Yippee! Gokulam Kerala players celebrate their title triumph with great gusto. ■ RAJEEV BHATT

Francis Morante's 17th minute header went wide, while Joseba Beitia's 22nd minute long ranger sailed over the bar.

GKFC used its left wing, manned by the agile Malemngamba Meitei, and some aerial balls to threaten the Bagan citadel.

It came close to grabbing the lead twice. Meitei's fine cross for Henry Kisekka was neutralised by Debjit in the 19th minute and Joseph's

26th minute cross from the left did not find a taker owing to confusion between Mohammed Rashid and Kisekka.

GKFC gained the lead through a penalty at the stroke of half-time. In a classic counter-attack, Joseph took forward a clearance and passed it on to Kisekka. The Ugandan was brought down by Debjit and Joseph converted the penalty.

Solo run

And soon after GKFC survived a spirited attack from Suhair V.P., Joseph doubled the lead. Huidrom Nachoa Singh banked on Ashutosh Mehta's lapse to feed Joseph and the Kerala captain ran solo for 25 yards before beating a helpless Debjit in the 51st minute.

Bagan, nevertheless, maintained pressure and reduced the margin in the 64th minute when Chamorro Salva headed in Beitia's free-kick. GKFC keeper Ubaid fumbled and saw the ball roll into the net.

The final 15 minutes witnessed madness of sorts – with Bagan missing plenty of chances, both teams involved in a heated exchange and each getting a red card – before GKFC laid its hands on the coveted trophy.

The result: GKFC 2 (Joseph 46-p, 51) bt Mohun Bagan 0.

Athletes find strange reasons to skip Nationals

Is there another motive for this?

STAN RAYAN
KOCHI

He had shocked the Asian Games champion triple jumper Arpinder Singh for the Federation Cup gold in Patiala early this year. But surprisingly, Youth Olympics bronze medallist Praveen Chithravel will miss the National inter-State athletics championships, a qualification meet for next month's Doha Worlds, which begin in Lucknow on Tuesday.

And a bit of confusion appears to be the reason behind the big miss.

"The (national body) AFI had changed the rule recently, if as a junior you participate in a senior meet, you cannot compete in a junior meet any more. But the junior meet is a qualification competition for next year's under-20 Worlds," said Antony Yaich, the head coach of JSW's Inspire Institute of Sports, near Ballari, where Chithravel trains.

"So Praveen and woman high jumper Rubina Yadav, even if she is ready to jump 1.85m, will not be taking part in the inter-State."

Only a proposal

But the AFI has not introduced such a rule, it is just a proposal and the national federation has formed a committee to study it.

When this was explained to Yaich, he said, "I am fine with that, the focus for Praveen and Rubina will be the junior Worlds."

Meanwhile D. Arivuselvam, the country's third best triple jumper last year (personal best of 16.49m), has also decided to skip the inter-State to focus on next month's Services meet in Pune.

"I had to attend a few classes conducted by the Army and so could not prepare properly; that's why I'm not going to Lucknow. But I will go for the Services meet, it is more important for me," said the Armyman from Tamil Nadu.

Mohammed Salahuddin has progressed impressively this year and is now the country's No. 1 triple jumper with his 16.64m at Almaty (Kazakhstan) but Yaich feels Arpinder is ready for a 17m jump in Lucknow and qualify for the Doha Worlds.

I had to attend a few classes conducted by the Army and so could not prepare properly; that's why I'm not going to Lucknow

D. ARIVUSELVAM

Also, a lot of promising triple jumpers currently appear to be down with injuries or just recovering from them.

UP's Mohammed Zuber suffered a ligament tear after winning silver (16.21m) in Almaty last month while Maharashtra's Jay Shah, the best athlete with his 16.36m jump at the varsities National last year, will also skip the inter-State after missing many training sessions following a heel injury.

Meanwhile, Asian junior champion Kamal Raj, who was fifth in last year's under-20 Worlds in Finland, is recovering from an injury.

Ankle injury really?

"I have a crack in the ankle, only if it is cured I can jump properly so I've decided not to go to Lucknow," said the 20-year-old.

Surprisingly, that did not stop Raj from winning the all-India inter-Railway gold with a 15.49m effort in Pune the other day.

Incidentally, there was no dope testing at the Railway meet.

Another athlete, Rintu Mathew jolted Asian Games silver medallist V. Neena and won the women's long jump gold in the Railway meet with a personal best of 6.42m. That made Rintu the country's best long jumper this year, but the Kerala-born athlete has also decided to give Lucknow a miss.

"I have been selected for the World Railway meet from September 10 in the Czech Republic and we have the camp in Delhi, so I've decided to skip the inter-State."

Interestingly, Tamil Nadu's Chandralekha who took the 100m title in the Railway meet with a personal best 11.47s – and became the country's second fastest woman this year behind Dutee Chand (11.26s) – will also be missing the Lucknow meet.

That raises the big question – is there another reason behind the big miss?

Dabang Delhi pips Bengaluru Bulls

PKL

PRESS TRUST OF INDIA
NEW DELHI

Host Dabang Delhi on Saturday notched up a thrilling 33-31 win over defending champion Bengaluru Bulls in the first match of the Delhi leg of the ProKabaddi League Season 7 at the Thyagaraj Sports Complex here.

In another match Telugu Titans beat Jaipur Pink Panthers 24-21.

Naveen Kumar was the star for the Delhi side who trailed for most parts of the match but inflicted a crucial all-out in the final minutes on the Bulls to walk away with all the points.

Bengaluru Bulls started the match on the front foot, racing to a 5-0 lead, with Pawan Sehrawat flying high. The Bulls piled on the pressure, backed by their defence, to inflict the first All-



Slipping through: A Delhi Dabang raider looks to escape the clutches of Bengaluru Bulls' defence. ■ SPECIAL ARRANGEMENT

Out of the match on Dabang Delhi in the 11th minute and open a gap of six points.

The defending champions continued to dominate with

its defence, manned by Maheender Singh and Saurabh Nandal, thwarting all the raiders who came in their territory. The first half ended

19-11 in favour of Bulls.

The league's top raider, Pawan Sehrawat started the second half with the same intensity, rushing to his Super

10 (10 raid points) within six minutes of resumption as the Bulls maintained their pressure on Delhi.

The home team brought in Meraj Sheikh to add an extra dimension to its raids and the Iranian picked up bonus points to keep Dabang in the game as the match edged closer to the final whistle.

Three points by Naveen Kumar in two successive raids with five minutes remaining in the match helped him reach a Super 10 and make it a one-point game.

The aggressive strategy saw Delhi force an all-out on Bulls with 3 minutes remaining to take the lead.

But Pawan Sehrawat's two-point raid tied the match once again with just a minute remaining.

Delhi then pulled off an important tackle in the final minute to win the first match of its home leg.

Serena Williams chases a record 24th Grand Slam

Faces Sharapova in opener; Big Three 'almost impossible' to beat in the men's section

US OPEN

AGENCE FRANCE-PRESSE
REUTERS
NEW YORK

Serena Williams has the US Open spotlight as she chases tennis history, but a host of Grand Slam winners and high-ranked rivals are also taking aim at the title.

The 37-year-old American will be the focus of attention when the Flushing Meadows fortnight begins on Monday with her first-round night match against Russian Maria Sharapova the most anticipated of the women's openers.

"Of course I'm going to watch it," said top-seeded defending champion Naomi Osaka, who beat Williams in last year's final. "I think everyone in New York is going to watch it."

Williams will try to capture her 24th Grand Slam singles title to match the all-time record set by Margaret Court.

The wannabes

Ashleigh Barty, Naomi Osaka, Simona Halep and Czech third seed Karolina Pliskova, seeking her first Slam title, are among the foes trying to deny Williams yet again in a quest she insists doesn't dominate her thoughts.

Roger Federer, Rafa Nadal and Novak Djokovic have enjoyed years-long stranglehold on Grand Slam titles and that dominance is unlikely to end at the U.S. Open where a cast of hopefuls will try to end their reign.

The 'Big Three' have com-



No big deal: Top seed Naomi Osaka has said that last year's acrimonious final will not stop her from watching the high-profile Serena Williams vs Maria Sharapova clash. ■ AP

bined to win each of the last 11 Grand Slams, with Serb Djokovic having triumphed in four of the last five blue ri-

band events and a popular pick to successfully defend his New York title despite being dealt a tough draw.

Top seed Djokovic will begin his title defence against Roberto Carballes Baena, and before a projected semi-

final clash with five-time winner Federer could meet former champion Stan Wawrinka or 2017 finalist Kevin Anderson in the fourth round.

The threat

One player who is widely considered a possible threat is Russian fifth seed Daniil Medvedev, who has proven to be the most in-form player in the lead-up to the U.S. Open and is Djokovic's projected quarterfinal opponent.

Federer, owner of a record 20 Grand Slam titles, considers himself in fine form despite a forgettable U.S. Open tune-up that consisted of a swift third-round upset in Cincinnati.

Three-times champion Nadal, whose title defence at last year's U.S. Open ended with him retiring from the semifinals with a knee injury, has also declared himself ready for battle.

Nagal to face Federer in dream debut

PRESS TRUST OF INDIA
NEW YORK

Sumit Nagal has earned himself a dream Grand Slam debut – he will face the legendary Roger Federer in the US Opening round on Monday.

Nagal defeated Brazil's Joao Menezes 5-7, 6-4, 6-3 in the final qualifying round on Friday.

The 22-year-old Indian has become only the fifth

Indian after Somdev Devvarman, Yuki Bhambri, Saketh Myneni and Prajnesh Gunneswaran to feature in a Grand Slam singles main draw in this decade.

Nagal was also only the sixth Indian to win a junior Grand Slam title when he won the Wimbledon boys' doubles with Nam Hoang Ly of Vietnam in 2015.

"It means a lot. Everyone dreams about this. I am super happy. I don't even know what to say," Nagal told PTI.

"It will be a great opportunity to play Roger at Arthur Ashe stadium. It's probably the best thing that could have happened.

"I was hoping I get to play Roger someday. He is God of tennis, so yeah I am looking forward to it,"

added Nagal.

With Prajnesh also playing in this US Open, India now will have two players in the Grand Slam main draw for the first time since 1998 when Leander Paes and Mahesh Bhupathi competed at Wimbledon.

Prajnesh is set to clash with Cincinnati Masters winner and world No. 5 Daniil Medvedev.

BusinessLine THE HINDU GROUP

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IN BRIEF


Gandhi statue to be installed in Manchester

LONDON
A new statue of Mahatma Gandhi will be inaugurated in the British city of Manchester later this year after a local council approved plans for it as a symbol of peace. The 9-foot-high bronze sculpture by Indian artist Ram V. Sutar will be installed outside Manchester Cathedral. **PTI**


Star Wars leads Disney streaming line-up

ANAHEIM
Disney lifted the lid on three live-action *Star Wars* series for its much-hyped new television streaming service. The shows will have Ewan McGregor's return as Obi-Wan Kenobi. A live-action *Lady and the Tramp* production is also on the cards. **AFF**


Ecologists seek trade sanctions on Mexico

GENEVA
Conservationists are urging countries to slap trade sanctions on Mexico over its failure to rein in illegal fishing that could doom the vaquita marina porpoise to extinction within months. Only 10 vaquitas are believed to exist in the wild. **AFF**


Google cracks whip on political debates at work

SAN FRANCISCO
Google on Friday told employees to focus on their jobs instead of heated debates about politics with colleagues at the workplace. The revised community guidelines said the workday should not be disrupted to have arguments. **IANS**

32 fashion firms sign pact to make the industry eco-friendly

Sector is responsible for 10% of greenhouse gas emissions

ELIZABETH PATON
PARIS

Major fashion companies from around the world said they had signed a pact which they would present at this week's G7 summit to help protect the environment.

The pact has been signed by 32 companies.

Protecting the environment will be a leading issue at the G7, with French President Emmanuel Macron and United Nations Secretary General Antonio Guterres having expressed concern this week over wildfires raging through the Amazon.

The agreement outlines group commitments on climate, biodiversity and oceans. It defines itself as "a set of guidelines" and will not be legally binding. The 32 signatories, which include high-end brands like Chanel, Prada and Hermès; athletic apparel names like Nike and Adidas; as well as fast fashion retailers like the H&M Group and Inditex, the parent company of Zara, say they will implement proposed changes to their own operations. No punitive measures will be imposed should they fall short of targets.

"The global challenges we are facing are complex," Mr. Pinault said. "They know no borders. Only coalitions can overcome them, bringing together governments, businesses and civil societies."

Scrutiny of the fashion in-

Gaming goes through a retro moment

Console makers are retooling their old machines and dusting off catalogues of yesteryear hits

AGENCE FRANCE-PRESSE
COLOGNE

Clunky games consoles with blobby pixels might not be the latest thing – but they're still cool even if you're no longer at school.

Video games producers plying their wares at Gamescom this week in Cologne, Germany, may primarily be out to push the frontiers of hi-tech and virtual reality as they eye a bigger slice of a booming market. But their commercial antennae are sufficiently honed to realise numerous hands on the joystick belong to gamers for whom retro hasn't so much come back as never gone away.

That much was evident from the interest shown towards those who brought along vintage hardware which the uninitiated might have thought had long been left to gather dust in the attic.

So-called "retrogaming" – digging out favourite classic games of yesteryear to be played on equally ageing hardware – is trending at Gamescom, Europe's gaming fair.

That much is clear from seeing a sea of enraptured faces as visitors drool over machines from right back in the early days.

For some old school gamers, it's a welcome blast from the past.

For others, the past is their present, be it indulging original vintage passions on old machines, 'emulating' a game simulated on a new machine or 'porting' to en-



Blast from the past: Players try their hand at Pacman at Gamescom in Cologne. **•AFP**

joy old content on new hardware.

"It reminds me of my childhood and today I realise that the games in those days could also be complex," laughs Jacky Mueller, a 21-year-old student trying to snaffle virtual bananas while playing old favourite Donkey Kong on a Super Nintendo.

Down the generations

Nearby, a father is waxing lyrical on the attractions of another classic game, "Pong", to his young son.

The early arcade game, launched in 1972, involves each player manipulating a virtual cursor-like tennis "racquet" to ping the ball back across a screen of simple 2D graphics to win the 'point'.

This has the potential to become a real market, albeit not a very big one

ANDREW KITSON
Analyst at Fitch Solutions

"Retro is everywhere – in films, music, cars, clothes. So why not games?" asks Christian Gleinser, creator of a cohort of new games which work on computers 'boasting' 1980s graphics.

"People like to have fun among friends and appreciate the ease of use, the short charging times and even the old pixels," says Gleinser against the fair's musical backdrop of the likes of Sonic, Mario Kart or Pokemon.

Some dyed-in-the-wool gamers have kept faithful to

the old games even if some emulator programmes which allow adaptation across platforms are not always technically quite legal.

What is striking is how the rising retro trend has lifted the average gamer age as veterans who got the bug in the 1980s and 1990s pass on their memories and old-time savvy to youngsters, often their own, even as the latter more often than not are coming to the genre via shiny and new hardware.

"We see there is a return to VHS tapes or vinyl and retrogaming is adding itself to that trend – there's no reason why video games wouldn't," notes Fanny Renard, a community manager at independent studio Goblitz.

7 new species of insects that can walk on water discovered

The tiny bugs are among nature's scavengers

SHIV SAHAY SINGH
KOLKATA

Scientists of the Zoological Survey of India have discovered seven species of water treaders, semi-aquatic insects that can walk or run on the surface of water.

The newly described species belong to the genus *Mesovelia* whose size ranges from 1.5 mm to 4.5 mm and are equipped with hydro-



Mesovelia andamanensis and, right, *Mesovelia brevia*. **•ZSI**

phobic setae (bristles) on their legs. The combination of hydrophobic setae and water surface tension prevents them from sinking. The

insects are pale green with silver-white wings with black veins on the basal half which make them stand out over the green mat of aquatic

weeds. Among the new discoveries, *Mesovelia andamanensis* is from Andaman Islands, *M. bispinosa* and *M. isiasi* are from Meghalaya, *M. occulta* and *M. tenuia* from Tamil Nadu and *M. brevia* and *M. dilatata* live both in Meghalaya and Tamil Nadu.

The details of the discovery were published in a paper in the journal *Zootaxa* earlier this month.

"These bugs are hemimetabolous insects without having larval stage i.e., they go from egg to nymph to adult. They are found on freshwater bodies such as ponds,

lakes, pools, streams, rocks with moss and sometimes on estuaries," E. Eyanir Jehamalar, one of the authors of the paper, said.

Ms. Jehamalar said these bugs serve as predators and scavengers (feed on midges, water fleas, feed on dead and dying mosquitoes), thereby removing organic waste and also providing a natural sanitation service. The females of *Mesovelia* are larger than males and dig several holes on plants and insert eggs in plant tissues with a specially adapted long serrated ovipositor (genital organ).

There are 12 species of genus *Mesovelia* found in the country. While large water striders (*Limnogonus*, *Aquarius*, *Cylindrostethus*, *Geris*, *Ptilomera*) are easily spotted upon the surface of water, the tiny *Mesovelia* are not as well-known.

Other than the size, there are morphological features that make these pond-weed insects different from water striders. The claws of *Mesovelia* are placed apically (tip or extreme end of legs), whereas in water striders, they arise from the pre-apex (just before the tip) of legs.

Humanoid robot fails to dock at ISS

AGENCE FRANCE-PRESSE
MOSCOW

An unmanned spacecraft carrying Russia's first humanoid robot to be sent into orbit failed to dock at the International Space Station on Saturday, in a new setback for Moscow.

"Russian cosmonauts issued a command to abort the automated approach of an uncrewed Russian Soyuz spacecraft to the International Space Station," the U.S. space agency NASA said in a statement.

"The craft was unable to lock onto its target at the station," and "backed a safe distance away from the orbital complex while the Russian flight controllers assess the next steps," NASA said.

Russian flight controllers had told the ISS crew it appeared the problem that prevented automated docking was in the station and not the Soyuz spacecraft, NASA added.

Roscosmos director Dmitry Rogozin said on Twitter that a new attempt would be made to dock the craft on Tuesday morning. "The situation is difficult, but under control," he added.

"There is no threat to the station and its crew," a Roscosmos statement said.

Russia's space industry has suffered a series of setbacks from accidents in recent years.

Last October, a Soyuz rocket carrying an American and a Russian had to make an emergency landing shortly after lift-off – it was the first failure in the history of manned Russian flights.

Down and dirty



Unafraid of spatter: Men covered with mineral-rich mud play football during the "Iron mud" festival in the town of Zheleznovodsk, Russia, on Saturday. The mud, which is considered therapeutic, is drawn from the Lake Tambukan. **•REUTERS**

Marvel Studios to offer She-Hulk and Moon Knight series

INDO-ASIAN NEWS SERVICE
ANAHEIM

Marvel Studios is amping up the superhero slate, with She-Hulk and Moon Knight ready to join the Marvel Cinematic Universe (MCU).

Marvel head Kevin Feige announced that a live action series on She-Hulk, Moon Knight and Ms. Marvel were in development for the upcoming streaming platform Disney+. He even said that

there was a possibility of these storylines shaping into movie form.

"Bruce Banner is no longer the only Hulk in the MCU. Jennifer Walters is a Hulk, she's a lawyer, and she's going to star in a show unlike anything we've done before," said Mr. Feige.

Mr. Feige is also excited about an action adventure series on Moon Knight, a popular Marvel character

"At the centre is Marc Spector, a mercenary left for dead by his companions in the Egyptian desert. He may or may not be infused with powers from the Moon God Khonshu or he might just be crazy. It is something very unique and exciting for us," Mr. Feige said.

Muslim superhero

The studio will also introduce its first Muslim super-

hero with Ms. Marvel. The series will focus on the life of a teenager named Kamala Khan, a Pakistani-American from New Jersey, who has the ability to stretch and change shape. The Ms. Marvel project will be helmed by screenwriter and comedian Bisha K. Ali.

The announcements didn't include any details about casting or planned release dates.



She-Hulk is the story of a lawyer who gains superpowers.