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Photography
AND IMAGING

Photokina 2018: What to expect?

Technology & Pros

The Future will print in 3D

Best cameras from last year

Best laptops for photo and video editing

Most expensive cameras money can buy

SAP
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PUBLICATION

BHAVYA DESAI

The beauty of technology

Once every two years, the month of September is the time when the photography fraternity descends upon Photokina to take a look at all the latest that is happening in the industry. But the 2018 edition will be an end and the start of a new era in the expo's journey. Since it will mark the last time that it gets hosted in the once-in-two-year format and change to a yearly show. For me, this shows that the show is moving with the industry trend where all big expos now have become an annual affair.

But with Photokina, the excitement is about all the new launches that one can expect ahead of the show. And that brings me to our point about technology. Technology from an overall perspective in any industry is moving at a very fast pace, even more than it has ever been. And finally the photography industry seems to have caught up with it. This is evident with the regularity at which manufacturers have started upgrading and introducing their products.

So we thought it would be great to focus an issue on 'Technology' and give our readers and idea about what is to come in the future. And this gave us the liberty to feature a number of articles surrounding this topic. These include articles such as what you can expect from the year to come, best cameras and laptops in different categories to how technology has changed over the years.

And with Photokina around the corner, we have also done our annual feature about what to expect if you are planning to visit the show. The issue features a complete article about our predictions of what will be launched, and if you are a person who likes videos, then you can also check out our video on the same on our YouTube channel. And like the previous edition we will be live at Photokina to give you the latest happenings from the show.

Until Next Time….
Happy Reading!!

CONTENTS

CONTENTS

TIPS AND TECHS

68

58

76

CAMERA REVIEWS

90

94

LETTERS TO EDITOR
Readers' Comments and Suggestions...

Send your letters at apindia.feedback@gmail.com

LETTER OF THE MONTH
ASIAN Photography

The Letter of the month will receive **1 Year subscription (12 E-Issues)**

Dear Editor,

I am a regular reader of the magazine and read the August 2018 issue of the magazine. I really liked the feature on Everyday Pakistan that was done. It feels like a welcome change after all the negativity that surrounds India and Pakistan. So it is good to see that there are people like us, who all have the same issues and daily struggles just like us.

Regards,
Ankur Mahajan,
Mumbai

EVERYDAY PAKISTAN
– A STORY OF MISREPRESENTATION
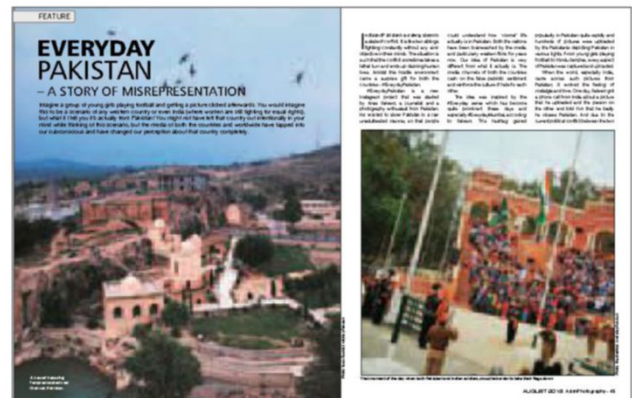
Dear Ankur,

Thanks for your email and the kind words for the article. Infact before we decided to take this article up we were also equally curious of the type of content that #EverydayPakistan was uploading. It was really interesting and just the basic things that were being uploaded everyday made us feel the same emotions that you went through. That is precisely the reason why we featured the handle and the article on the same.

Like every other country there are people like us across the border who are not interested in all the politics and the issues that surround both the countries. They are regular people like us in India and would love to know more about our culture just the way many of us would like to know about their culture as well. So we are happy that you liked the feature.

LETTERS TO EDITOR

Readers' Comments and Suggestions...

Send your letters at apindia.feedback@gmail.com

Dear Sir,

I have been reading the website and also following the Facebook and YouTube channel of the magazine since the past few months. I just wanted to congratulate the team on making it to the list of the '20 Most Promising Websites for 2018'. I think you guys are doing a great job and do keep it up as well.

Regards,
Vinita Krisnamoorthy,
Chennai

Dear Vinita,

We can't tell you how excited we are about this. The team has worked very hard over the years to ensure that we always bring the best content to the industry, whether online or in print. So when we also got the news then we were extremely happy about the same.

We would of course like to thank all our readers and also the team that has contributed to this exciting achievement. We hope that we are able to bring you the best and latest content all the time. Infact we have some exciting plans and we will inform you about the same soon.

Dear Sir,

I am a regular reader of AP. I saw the August issue and the article on the 'Tripods'. I thought that it was a very informative article and if the magazine could do some more articles like that. Its good for people like us who don't read every single issue and like to get the best information on products in one article.

Regards,
Ankit Sharma,
Mumbai

Dear Ankit,

Well that was an interesting article and if you liked that article then you are sure to like the issue that we have put together this month. In this issue we have compiled a lot of top products across different segments. These include the best cameras, laptops, accessories and so on.

Since the focus of this month's issue is technology, we have highlighted the top trends in the industry for the year. We will surely try to include some more content in the coming months for articles like this. If incase you want something specific then you can surely write to us about it and we will try and see if we can include that in the upcoming issues.

Never miss the moment

CANON INDIA MARKED 'WORLD PHOTOGRAPHY DAY' CELEBRATIONS

Canon India furthered its commitment to cultivate the passion and spread the knowledge of photography across the nation. To mark the occasion, the imaging leader had organized a series of pan India initiatives, as an exhaustive outreach to enhance photography culture and help enthusiasts hone their clicking skills.

Sharing his thoughts, Mr. Kazutada Kobayashi, President and CEO, Canon India said, "Photography is an enabler of memories, all occasions can be preserved and cherished through this beautiful form of art. At Canon India, we believe in enabling and expanding the joy of photography. Over the last six years of my experience in India, I have personally witnessed the culture of photography evolve and our organization has made constant endeavors to support this journey. As people increasingly continue to express themselves through the art of photography, our initiatives like the Photo walks, photography workshops and social media contests are aimed at augmenting their interest in photography."

"We adopt a 360 degree methodology in the world of imaging, providing an elaborate experience of imaging with 'Input to Output'. Our camera technology is designed to capture true-to-life information and likewise, our print technology converts those colorful, abstract memories into frame-worthy pictures. We would continue to innovate and delight our customers with best experiences in the imaging space," added Mr. Kobayashi.

Inspiring the spirit of discovery in one's own city, Canon had organized multi-city photo walks in the months of July and August. The aim of this initiative was to call out to photography enthusiasts to compile hyper-local experiences that bring out the extraordinary that exists in the seemingly mundane aspects of urban lives. The day long photo-walks through the streets of Delhi, Mumbai, Bangalore, Pune and Kolkata were led by some of the most popular Instagram influencers in the country including Zaid Salman (@yourworldmylens) and Nitish Waila (@nitishwaila) and gave a common platform to photography enthusiasts to capture the flavour of their cities.

With an interesting line up of activities, Canon made these photo-walks experiential for photography enthusiasts to cultivate their passion for photography into a profession. These photo walks were accompanied by a hands-on demonstration of Canon's EOS M50 mirrorless camera, popularly known as 'The Conversation Creator'. As an extension to these walks, a contest has also been announced on social media around street and travel photography, where the winners will be awarded with a unit of EOS M50 each.

Present at the photo walks, Mr. Eddie Udagawa, Vice President, Consumer Imaging & Information Centre, Canon India said, "In line with our commitment towards the photography community, we take pride in delivering a unique and engaging experience for them through our various pan India initiatives such as multi-city photo-walks, organized with an objective to celebrate and cultivate the spirit of photography."

He further added, "With more than 50 participants in every city, I was delighted to see them take out time to enhance their passion for photography skills by participating in our photo walks. It has been rewarding to see these photo walks bring about an evolution of photography from a hobby to a passion. Such astounding results captured by the participants, encourages us further to continue delighting our customers with the marvels of imaging."

Nikon introduces two mirrorless cameras: Nikon Z7 and Nikon Z6

Nikon announced the release of the full-frame (Nikon FX–format) Nikon Z7 and Nikon Z6 mirrorless cameras, as well as NIKKOR Z lenses, featuring a new, larger-diameter mount to enable the next generation of ultimate optical performance.

The new Nikon Z mount system is comprised of mirrorless cameras and compatible NIKKOR Z lenses. The Z mount system will offer a variety of high-performance lenses, including the fastest lens in Nikon history, with f/0.95. Additionally, the new mount adapter will enable compatibility with NIKKOR F mount lenses.

The Z7 and Z6 are equipped with a new Nikon FX-format BSI-CMOS sensor with built-in focal-plane phase-detection AF pixels, and the latest image-processing engine, EXPEED 6. The high-resolution Z7 has 45.7 effective megapixels, and supports a standard sensitivity range of ISO 64–25600. The versatile Z6 is an all-purpose FX-format camera with 24.5 effective megapixels, and supports the wide sensitivity range of ISO 100–51200.

Both cameras are equipped with an electronic viewfinder for which an approximately 3690k-dot OLED panel has been adopted. The electronic viewfinder has frame coverage and magnification of approximately 100% and 0.8×, respectively, as well as an approximately 37.0° diagonal viewing angle.The bodies are compact, while boasting a firm grip that is easy to hold, and the sub-selector and buttons such as AF-ON, ISO, and exposure compensation are all placed so that they can be operated swiftly and easily. Additionally, a display panel has been placed on the top plate of the camera, where information about settings can be displayed, similar to high-end digital SLR camera models. The Z 7 and Z 6 support recording of not only full-frame 4K UHD (3840 × 2160)/30p movies using the FX-based video format, but also Full-HD/120p movies. Sharper 4K UHD movies are made possible, using the full-pixel readout.

The Z7 and Z6 are equipped with in-camera vibration reduction (VR). The VR unit provides compensation for movement along five axes. The effects of vibration reduction are equivalent to a shutter speed up to approximately 5.0 stops. This function can also be used effectively with NIKKOR F lenses, including those not equipped with a VR function, with the Mount Adapter FTZ (sold separately).

The Nikon Z7 will be available on September 27 for a suggested retail price (SRP) of $3399.95 for the body-only configuration, or for $3999.95 SRP as a kit with the new NIKKOR Z 24-70 f/4 S lens. The Nikon Z6 will be available in late November for the $1995.95 SRP for the body only configuration, or for the $2,599.95 SRP with the NIKKOR Z 24-70mm f/4 S lens kit.

DJI Introduces Mavic 2 Pro And Mavic 2 Zoom

DJI recently introduced a new era for camera drones with two additions to its iconic Mavic series: Mavic 2 Pro, the world's first drone with an integrated Hasselblad camera, and Mavic 2 Zoom, the world's first foldable consumer drone with optical zoom capability. It has a flight time of up to 31 minutes and a more stable video transmission system.

Co-engineered in partnership with Hasselblad, the world's leader in medium format photography, the Mavic 2 Pro is the world's first drone with an integrated Hasselblad camera for good image quality with superior light and colour performance. Reportedly housing a 1-inch CMOS sensor with a 10-bit Dlog-M colour profile, the camera captures four times as many levels of colour per channel compared to Mavic Pro to provide maximum flexibility for photo and video editing. The Mavic 2 Pro can capture 20-megapixel aerial shots with Hasselblad's unique Hasselblad Natural Colour Solution (HNCS) technology, while an adjustable aperture from f/2.8-f/11 provides more control across a wide variety of lighting conditions. With 4K 10-bit HDR support, the Mavic 2 Pro can supposedly be plugged into a 4K TV with HLG and will play back footage with the right colour tones.

Mavic 2 Zoom is powered by a 1/2.3-inch CMOS sensor, and is DJI's first foldable consumer drone with zoom. With the Mavic 2 Zoom, the company claims that one can get closer to the subject by combining two-times optical zoom (24-48mm) with two-times digital zoom to simulate a 96mm telephoto lens that captures video in full HD resolution. Hybrid auto-focus on the Mavic 2 Zoom combines phase and contrast detection for higher focus accuracy with an increased focus speed of up to 40% faster than before. It can reportedly shoot vivid 12-megapixel photos and also comes with new Super Resolution feature that uses optical zoom to automatically capture and stitch nine photos together for a highly detailed 48-megapixel image.

The Mavic 2 flies at a speed of up to 44 mph (72 km/h) in Sport mode and has a maximum flight time of up to 31 minutes. Mavic 2 is also said to house an ultra-precise three-axis mechanical gimbal to stabilise its camera. Photos and videos can be saved directly to the drone using its 8 GB onboard storage.

The US retail price of a Mavic 2 Pro, including the drone, battery, remote controller, charger, and four pairs of propellers, is $1,449. The US retail price of a Mavic 2 Zoom, including the drone, battery, charger, remote controller and four pairs of propellers, is $1,249.

Tamron lenses awarded with two prestigious EISA Awards in 2018

Tamron recieves awards fro two of its lenses by the European Imaging and Sound Association (EISA) of its EISA Awards 2018-2019. The Tamron 28-75mm F/2.8 Di III RXD (Model A036) for "EISA MIRRORLESS STANDARD ZOOM LENS 2018-2019" and 70-210mm F/4 Di VC USD (Model A034) for "EISA DSLR TELEZOOM LENS 2018-2019". The model A034 also received the 2018 TIPA Awards for BEST DSLR TELEPHOTO ZOOM LENS. Tamron has been honoured with EISA Awards for 13th consecutive year.

The Tamron 28-75mm F/2.8 Di III RXD (Model A036) is a high-speed standard zoom designed for full-frame mirrorless cameras. Compact and lightweight at just 550g, it is an excellent fit for small cameras such as the Sony A7 family. It is designed to produce enough detail for the newest high-resolution sensors, while the large aperture makes it easy to throw the background out of focus with a beautiful 'bokeh' effect. The fast, quiet autofocus motor is capable of keeping moving subjects in focus. Overall this lens provides very good performance at a highly competitive price.

Tamron's latest telephoto zoom, Tamron 70-210mm F/4 Di VC USD (Model A034) combines high-quality optics with a constant F/4 maximum aperture, fast and silent autofocus, and optical stabilisation, all at a fraction of the cost of equivalent lenses. It delivers impressively sharp images with minimal aberrations, along with attractive background blur. Relatively lightweight, its moisture-resistant construction should also appeal to photographers who regularly shoot outdoors. Providing a very attractive balance between image quality, robustness and portability, it's a great choice for enthusiast photographers.

Xiaomi debuts new sub-brand POCO, launches first smartphone POCO F1

POCO, a new sub-brand of Xiaomi, made its debut. POCO seeks to redefine the smartphone experience by offering the ultimate performance.

The first smartphone unveiled is POCO F1, which features the flagship Qualcomm Snapdragon 845 platform, the LiquidCool Technology cooling system, up to 8GB RAM and 256GB UFS 2.1 storage along with a long-lasting 4000mAh battery. The powerful Qualcomm Snapdragon 845 SoC is paired with the highly efficient LiquidCool Technology cooling system, enabling it to deliver sustained peak performance for extended periods. Moreover, POCO F1 features a 4000mAh battery that can sustain 8 hours of non-stop gaming. Coupled with up to 8GB LPDDR4x DRAM.

POCO F1 has an AI dual camera consisting of a 12MP Sony IMX363 primary sensor with Dual Pixel Autofocus. On the front, POCO F1 deploys a 20MP sensor featuring Super Pixel technology that combines the information of four pixels into one large 1.8µm pixel for clearer images with less noise. POCO F1 comes with an infrared illuminator and infrared camera on the front, allowing the AI face unlock feature to securely unlock the device both in pitch-dark conditions as well as in bright daylight.

MIUI has been customised on POCO F1 for a lighter, faster, and smoother experience. With a new POCO Launcher, POCO F1 comes with an app drawer that can automatically categorise apps, helping users finds apps easily.

The new powerhouse will be available at an irresistible price tag, and will hit the shelves in India on 29 August starting at ₹20,999, and roll out around the world gradually. The POCO F1 is also available with polycarbonate backs in Graphite Black, Steel Blue, and Rosso Red. POCO F1 will retail at ₹20,999, ₹23,999, and ₹28,999 for the 6GB+64GB, 6GB+128GB, and 8GB+256GB respectively. The Armoured Edition comes in a single 8GB+256GB configuration and will retail at ₹29,999. POCO F1 will go on sale on mi.com and Flipkart on 29th August 2018, starting 12 PM.

Canvas
Memory Cards

Record precious moments and bring out the imagination. Paint your life with colorful memories and create your own masterpiece.

Canvas Select	Canvas Go!	Canvas React
Ideal for		
Filming full HD videos	Recording adventures in 1080P or even 4K	High-speed burst shooting
Speed[1]		
Up to 80MB/s read, 10MB/s write	Up to 90MB/s read, 45MB/s write	Up to 100MB/s read, 80MB/s write
Capacities[2]		

	Canvas Select	Canvas Go!	Canvas React
SD Card	16GB-128GB	32GB-512GB	32GB-256GB
MicroSD Card	16GB-256GB	32GB-128GB	32GB-128GB

Warranty

Lifetime warranty with free technical support

1. Speed may vary due to host and device configuration.
2. Some of the listed capacity on a Flash storage device is used for formatting and other functions and is thus not available for data storage. As such, the actual available capacity for data storage is less than what is listed on the products. For more information, go to Kingston's Flash Guide at kingston.com/flashguide.

Sony introduces the Long-Awaited 400mm F2.8 G Master Prime Lens

Sony recently introduced their 400mm F2.8 G Master Prime lens to best take advantage of the rapidly evolving shooting and focussing speeds of Sony's latest cameras. The FE 400mm F2.8 GM OSS lens features two newly developed high-speed XD (extreme dynamic) Linear Motors that drive the lens' focus group, achieving up to a 5x improvement in moving-subject tracking performance. These motors are supported by specially developed motion algorithms to minimise lag and instability and control noise levels, resulting in exceptionally quick, accurate and quiet autofocus performance. This allows the lens to capture dynamic, fast moving athletes or wildlife with ease.The lens is also said to feature an 11-blade circular aperture mechanism that allows it to produce extremely natural and beautiful background defocus or 'bokeh'. Each lens is also individually tested and adjusted at manufacturing stage to achieve maximum image quality and 'bokeh'.

The new FE 400mm F2.8 GM OSS is compatible with Sony's 1.4x and 2.0x E-mount tele-converters, producing outstanding imaging performance at extended focal lengths while maintaining fast, precise AF performance.

According to Sony, weighing in at only 2897g, the new FE 400mm F2.8 GM OSS lens provides a level of portability and handheld manoeuvrability with a reduced number of elements deployed at the front of the barrel, as well as the liberal usage of durable magnesium alloy components.

To withstand the harsh conditions of sporting events and wildlife photography, Sony's new FE 400mm F2.8 GM OSS is said to be built with a durable magnesium alloy and a strong, lightweight carbon fibre hood. The lens is also dust and moisture resistant, and its front element is coated with fluorine to resist dirt and fingerprints.

There is also an ample amount of hard controls on the lens, including a 'Full-Time DMF' switch to immediately engage manual focus at any point, customisable focus hold buttons in four different locations on the lens barrel – allowing easy access of an Eye AF for example, and a focus ring that features Linear Response MF for fine, responsive manual focus. According to Sony, the new lens also features built-in optical stabilisation for dynamic sports action and three different 'Mode' settings, including a brand new Mode 3 setting with an advanced algorithm that ensures easier framing when following moving subjects. The new model includes a function ring with selectable 'Preset' and 'Function' settings, further adding to the customisability, a first for any Sony lens.

The FE 400mm F2.8 GM OSS includes a drop-in filter slot that accepts ø 40.5mm ND and other filter types, as well as the optional VF-DCPL1 Drop-in Circular Polarising Filter. The VF-DCPL1 filter can be rotated to achieve the desired polarisation while installed in the lens.

The latest system software update (Version 3.00) for α9 (ILCE-9) provides support for the new FE 400mm F2.8 GM OSS (SEL400F28GM) lens to optimise optical image stabilisation performance and enables continuous shooting with auto focus tracking even when aperture is greater than F11.

The new FE 400mm F2.8 GM OSS will be available on order across all Sony Center, Alpha Flagship stores, Sony authorised dealers and major electronic stores across India.

Nokia 6.1 Plus launched in India

HMD Global, on August 21 launched the Nokia 6.1 Plus edition in India. HMD Global is the phone manufacturer who are responsible for the Nokia branded phones. The smartphone is powered by Android One and the Nokia 6.1 will also feature a notch screen. The screen size is of 5.8inch and is stretched in a 19:9 aspect ratio also it comes packed with a curved Gorilla Glass 3 for protection.

The phone is reportedly equipped with a Qualcomm Snapdragon 636 system-on-chip. The Nokia 6.1 has been given 4GB of RAM and 64GB of internal storage which is expandable up to 400GB using the microSD card slot. This model will have an Android Oreo as the OS which might get bumped up to Android Pie soon as this is an Android One smartphone.

The phone is also said to have a dual camera module on the back, with a 16-megapixel primary sensor and a 5MP depth-sensing lens, and a 16MP selfie unit on the front. The Nokia 6.1 comes with a new feature called "Bothie mode" which allows both the front and back cameras to work simultaneously in order to capture Images. The phone is powered by 3,060

mAh battery, and supports quick charging. The phone features a USB type-C port for charging and data transfer jobs, and features a dedicated 3.5mm audio output port. Nokia 6.1 is priced at ₹15,999, which is a little cheaper than its previous model but it is speculated to be a more powerful piece of technology from Nokia.

Ask Your Expert

Send in your Questions to
ap.askyourexpert@gmail.com

Answered by
Bhavya Desai
Editor, Asian Photography

How do I shoot a timelapse video on a Canon 80D?
Nikhil Anand

Dear Nikhil,

The Canon EOS 80D allows you to take timelapse and output it as a final video file. You have to go to the interval timer menu and enable it. Then press the info button and that will allow you to go to the detailed settings for the timelapse including interval between each image and total number of images. You can select a desired time interval for each image and set the total number of images to '00' in case you have not decided on the length of the video. This is a very general way of setting up for timelapse and might differ only slightly from camera to camera. Most of the present day cameras have built-in interval timers to make it easier for capturing timelapses.

Which is better, A DSLR or a mirrorless? I am planning to buy a camera but cannot decide between the mirrorless and DSLR options.
Rahul Joshi

Dear Rahul,
Choosing between a DSLR or a mirrorless camera has always been a huge topic of debate. However, it is more about the kind of use that you are going to put it to. If you are a street shooter and do not want the atten-

tion, a mirrorless camera body and lens would be an ideal choice as mirrorless cameras tend to be smaller and retro looking which usually does not get much of attention when using it in the streets. DSLRs, on the other hand, are big, bulky and you should know how to operate one before actually shooting with it. If you are a seasoned shooter, looking for an upgrade, a new mirrorless camera would be a good choice. However, if you are comfortable using a DSLR and do not mind the bigger body and overall weight, you can stick to it. For a new buyer, a mirrorless is more forgiving than a DSLR, especially with the live screens, exposure simu-

lation and automatic settings to help you shoot and learn.

Is it better to buy a f/1.4 lens than a f/1.8 lens? What is the difference?
Sudipto Bhaduri

Dear Sudipto,
The difference between a f/1.4 and f/1.8 is actually 2/3rd of a stop. Light in photography is measured in stops and the f-numbers go like f/1, f/1.4, f/2, f/2.8, f/4, f/5.6 and so on. Each stop is again divided into 1/3 parts. However, when counting in stops, we tend to count only till full-stops. So the actual difference between an f/1.4 lens to a f/1.8 is of 2/3 of a stop which is not a full stop of light increment but still more than the f/1.8 lens. So in theory, the f/1.4 lens is a faster one. Also, lenses with aperture f/1.4 will tend to be more expensive than the f/1.8 version of the same lens but will have quality differences with their f/1.4 counterparts. The Bokeh would not show any great differences visually but you can expect sharpness wide-open for the f/1.4 lens. If you have the budget, you can go for the f/1.4 lens, else just stick to the f/1.8 lens if the budget is a constraint.
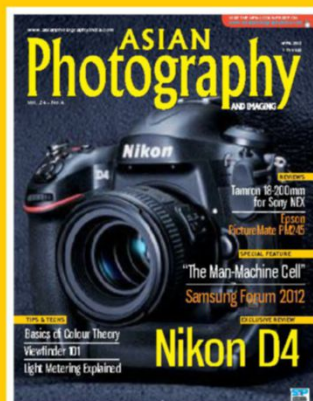
Photokina 2018:
What to expect?

In many ways this year's **Photokina** will mark an end and the beginning of an era. End, since it will be the last fair, which will feature in the once-in-two-year format and beginning since 2019 will mark the show as an annual event. So if you are thinking of visiting the fair and wondering what is it that it might have to offer, then you have come to the right place. **Bhavya Desai** predicts the products and technology line up at the show…

There is wide speculation and concern this year that with the growth of social media and the digital world, Photokina has over the years lost a certain amount of its charm. In fact, there are a number of international brands that believe that the 2018 edition is more of a regional show instead of the international behemoth that it used to be. And it is difficult to disagree with some facts with the sceptics. Yes, for sure it isn't the show it used to be, but at the same time, the make over of the image of Photokina in the past two shows has been pretty interesting.

With the show widening its horizons to include seminars and talks about augmented reality and business under DIGILITY, among others shows the direction and shape that it is taking for the future. But enough of that, let's get down to business.

Nikon and Canon: Full-frame Mirrorless is in

Undoubtedly the biggest news that is doing the rounds ahead of Photokina 2018 is what are yellow and red doing in the full-frame mirrorless department. Now I am not sure whether to be happy about the fact that finally both Nikon and Canon are taking this category seriously or the fact that they have FINALLY come to the party.

But as I had already predicted earlier that Nikon went all out teasing its launch for the 23rd of last month and launched the Nikon Z6 and Z7, their latest full-frame mirrorless cameras. So aside from the ones that had the chance to make the launch, Photokina 2018 probably will be the first time that visitors might get a chance to get their hands on the Nikon Z6 and the Nikon Z7.

While Nikon made the splash with the launch of their cameras, Canon on the other hand doesn't seem to be in a hurry in this department. While Canon was slow off the block in the mirrorless category in the past, they seem to have got their act together recently. Take for instance, the M50 Mirrorless camera. I think in all cases, the success of the M50 can only prompt the manufacturer to develop a much bigger version of the same camera that has more features.

So, at Photokina it is nearly certain that Canon will not launch their new full-frame mirrorless camera, but it will announce and probably showcase a prototype with the final launch happening

The Canon M50 and 55-200mm lens that has become popular with the users

in the month of October and the product available by the end of the year. Rumours and sources suggest that plans are already underway to produce the literature on the product and that it will feature the word 'R' as part of the system. I am not sure what the 'R' can stand for, but may be 'revolutionary'?

But what might be interesting to see for both Nikon and Canon will be the lens mounts. Whether they will come up with a new line-up remains to be seen.

The Professional range of Cameras

While mirrorless has been in the news in a big way, it is difficult to forget the traditional channels sometimes. But in the mid to professional range, everyone from Canon, Nikon, Sony and Fujifilm, among others, are expected to make a few launches.

Canon

It's been a while that Canon has launched something in this segment. In 2016, Canon launched the EOS 5D Mark IV which was a good camera. But, Nikon D850 and the Sony A7RIII followed this up. So there is a strong possibility that two years on, Canon will launch something that rivals the Nikon and Sony platform in this category.

In fact, there might be a follow up on the EOS 7D Mark II as well since it was announced nearly four years back. So, in all probability, we might see a successor to that as well.

Canon 5D Mark IV

Nikon

While the major steam from Nikon is focussed around the full-frame mirrorless camera, we still might see upgrades to some of the ageing cameras in their line-up. For instance, the D750 might see a facelift and so will be the case with the Nikon 5D.

NIKON D5

Sony

Sony has already released the A7R III and the A7 III which have already been popular cameras in their categories. While there doesn't seem to be much news floating around what Sony is going to do. But, the only camera that is up for an upgrade is the A7S II. Which makes it possible that the manufacturer might be launching a successor in the A7S III version. Although we haven't got any confirmation from our sources on this and also they state that at this point there is no indication of anything like that. But, news online suggests that a new camera with enhanced video capability could be announced at the show.

In the entry-level category, we can see the follow-up to the A6500. And this isn't surprising since Photokina might be the perfect platform for the company to debut its new A6700 camera. So the chances of the same being launched are strong.

Sony A6700 image from Sonyalpharumours.com

Some more images have surfaced online of the A6700

SONY A7S III

Fujifilm

If history is to go by, then this September 2018 we might see the debut of the XT-3, especially since the company has always been upgrading their flagship every two years. So I feel that Fuji might showcase the new camera at the show.

Fujifilm XT-3 mock up from Fuji rumours

Also, we do have confirmation from our sources that there will be several products launched at the show. My guess is three, with the XT-3 being one and the important one where the manufacturer is rumoured to also debut the next in-line (more affordable) medium format camera. This ideally is the smaller brother of the GFX 50S and might be named as the GFX 50R. If that is what it is called and if the positioning is lesser than the 50S, then it will be another breakthrough for the market since Fuji surprised many with the launch of a medium format at such an affordable price.

A number of announcements have already been made by the manufacturer, which ended several rumours. But the two exciting ones that we feel are going to happen are the XT-3 and the GFX 50R.

Panasonic

One company that has been very tight-lipped about their launches at Photokina is Panasonic. While there is already speculation online that there might be a launch of the Panasonic GH6, it seems highly unlikely if history is anything to go by.

Also, since the company launched the GH5S last year it might be too short a time to launch another camera. So we are ruling out any new launches for sure. Yes but our sources do confirm that there will be an announcement for a new product and we are pretty certain that this will be for the development of the GH6. In fact, a few images of the same product also released online a while ago. And this is exciting since when it comes to video, Panasonic has been pushing the boundaries and I wouldn't be surprised if it supports 6k recording.

But you never know, with the 10th anniversary of the micro-four thirds technology, Panasonic could be hiding something else under the hood as well?

Panasonic GH6 design pic uploaded on the New Camera website

Lenses

It is pretty difficult to make predictions in this category honestly. But we can give you an overall idea about what we think might happen in this.

Nikon

It is pretty clear that Nikon will launch a new category of lenses for its full-frame mirrorless cameras in the 'Z' mount. And the adapter that will be available for the users to use their existing lenses will be 'FTZ'. What is the number of lenses that they might launch isn't clear yet. But usually it always starts with the kit lens which might be the 18-55mm equivalent in the form of a 24-70 mm and one fixed and one zoom lens.

Nikon FTZ Adapter launched with the 'Z' mirrorless series of cameras

Canon

As mentioned earlier that we might not see a launch but an announcement for their mirrorless range at the show, much like Nikon, Canon should also launch their range of mirrorless lenses when they do the same.

Canon EF-M lens line-up

Tamron

As per our sources Tamron will at least launch one new lens at the show. It isn't clear whether this will focus on mirrorless or the regular category, but traditionally the manufacturer has always launched new lenses focusing on DSLRs at the show.

Zeiss

It is rumoured that Zeiss is planning to launch both an Otus and a Batis lense at the show. The Otus lenses are focused on DSLRs and traditionally start with the Canon and Nikon mount whereas the Batis lens is focused on the mirrorless category which might be for the Sony mount.

We can't confirm this but online reports suggest that all of these lenses will be in the fixed category since Zeiss is particularly popular for their optics and fixed lenses.

Go Pro

Well, this might be a year that Go Pro might want to forget. It's been a challenging year for them and rumours suggest that the new Hero 7 is on the way. But, online reports suggest that the Hero 7 has already been registered online and it features a similar model number as the Hero 6. If that is the case then there might be a slight upgrade to the camera.

Go Pro 06

Drones and accessories

In 2016, drones and accessories made a decent debut at the show. But in two years this has become a full-blown industry that has seen a variety of new entrants. The most prominent ones are DJI of course, and rumours suggest that they might debut the DJI Phantom 5 at the show. But, these are just rumours at this point and we have no confirmation on any of this.

DJI Phantom 5

But overall I do believe that in this year's show we will see a lot of launches when it comes to new drones and accessories, especially since the smartphone market has opened up such a big consumer market for all the players.

Printers

Now as simple as it may seem, this is one of the toughest industry to make predictions about. The simple reason for this being that this segment is complicated. But having said that, this year, we feel that apart from the regular printing space there will be some interesting announcements in the smart-printers and pocket printers segment.

All the manufacturers have started taking this industry seriously and you can already see pocket printers making their debuts, like the HP Sprocket and so on.

Fujifilm Instax instant printer

As this year's photokinia promises to show a lot of excitement as it will also be the last time that we see it in this avataar. As will be bringing you all the latest from the show. So stay tuned to our website and social media channels.

Micro SD Card Shootout

For a quite a few years the use of memory cards have not been restricted only to digital cameras, and it has expanded to other consumer devices like mobile phones and tablets which have adopted use of external memory, along with having a sizeable fixed internal memory. Even a lot of action cameras make use of Micro SD cards to store images and videos. With the upward rate of growth of technology used in such devices, there is more demand on the memory cards. With devices enabling users to play games, watch movies, and do more, the memory cards need to have significant transfer speeds for stutter-free operation with sizeable storage capacities. Hence this year, we asked for the companies to send in their best Micro SD cards and decided to put them through our tests.

PRICE
₹5,900

PRICE
₹6,000

Contenders

- Kingston 128GB microSDXC UHS-I U3
- SanDisk Extreme Pro 128GB microSDXC UHS-I U3

Parameters
We have taken the following things into consideration while reviewing the cards:
- Crystal Disk Mark 3.0.1
- Folder Test
- In Camera performance

The contenders for this month's SD card shootout were Kingston and SanDisk. Each manufacturer was asked to send their fastest micro SD cards in the 128GB category that support the FAT32 file format. Kingston sent in their Kingston 128GB Canvas React microSDXC UHS-I U3 A1 card priced at ₹5,900 which claims a read speed of 100MB/s. Similarly, SanDisk sent in their SanDisk Extreme Pro 128GB microSDXC UHS-I card, priced at ₹6,000 which has a read speed of up to 90MB/s.

The Benchmark tests

The Micro SD cards were put to test on various aspects, in terms of testing them with specialised software Crystal Disk Mark 3.0.1, that calculates read and write speeds, the folder transfer test, and the in-camera performance test. The test was to check the read and write speeds, performance, and their rating with respect to each other.

Crystal Disk Mark 3.01

In the Crystal Disk Mark test, there was a close battle between the two competitors. SanDisk recorded a read speed of 36.85MB/s and a write speed of 27.01MB/s, whereas Kingston was ahead, recording a read speed of 36.96MB/s, and a write

Kingston

Sandisk

speed of 26.14MB/s. The speeds show that both the cards are delivering equal performance, the Kingston being faster in the read department and the Sandisk being faster in the write department.
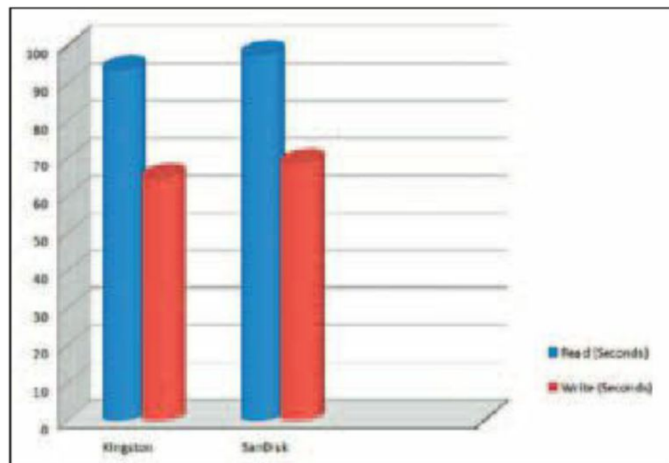
Folder Transfer Test

We put each card through the paces to check which clocks the fastest. This test was done by creating a folder which contained data worth about 2.02GB. Transferring the folder from card to computer was recorded as read time and from computer to card as write time. While SanDisk clocked a read time of 1 minute and 38 seconds. It had the write time of 1 minute and 9 seconds. Kingston clocked a read time of 1 minute 34 seconds and had a write time of 1 minute 5 seconds. The Kingston micro sd card has an edge from the Sandisk in the folder transfer test. The graph below will help you understand the read and write times for the respective microSD cards.

In Camera Performance

In this test, we made sure that the camera used for all the cards were the same and on the same settings. The camera that we chose was the Canon 80D, which was set to 1/125s, Aperture 7.1 and ISO 100 on a continuous shutter in manual mode. The process was followed by setting the stop clock to infinite and timed for 30 seconds for each card. As the shutter was released the clock timed the number of shots, on the basis of which we calculated the frames per second. The Kingston
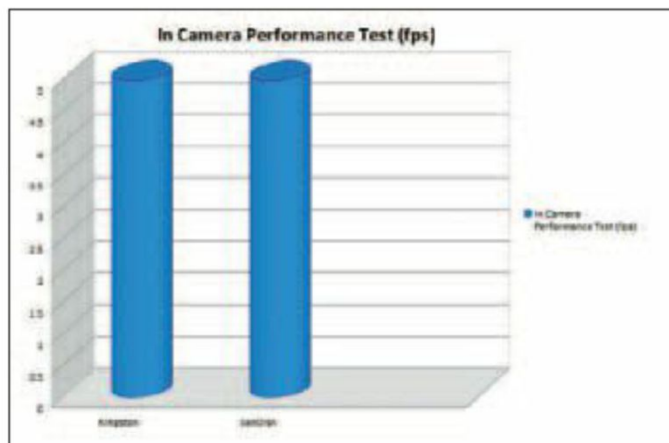
card delivered 6.66 frames per second whereas the Sandisk card has a speed of 6.83 frames per second, giving it a slight advantage over the Kingston.

Kingston 128GB microSDXC V30 UHS-I U3

In the Crystal Disk Mark test, Kingston recorded a read speed of 36.96MB/s, and a write speed of 26.14MB/s. Whereas in the Folder Transfer test, Kingston clocked a read time of 1 minute and 34 seconds, and a write time of 1 minute and 4 seconds. It recorded a 6.66 fps in the in-camera performance. Costing ₹5900, Kingston is almost equal to the Sandisk in terms if price and performance.

SanDisk Extreme Pro 128GB microSDXC V30 UHS-I U3

In the Crystal Disk Mark test, SanDisk had a read speed of 36.85MB/s and a write speed of 27.01MB/s. In the folder transfer test, SanDisk clocked a read time of 1 minute and 38 seconds, it had the a write time at 1 minute and 9 seconds. SanDisk delivered 6.83 fps in the in-camera performance test. Costing ₹6000, the card is certainly not cheap but surely performs well.

Conclusion

This micro sd card has been neck to neck and they are hardly going past each other. Considering the real world scenarios, both the cards are expected to deliver great performance. The only factor that it would depend on is the price of the respective memory cards. The Kingston card has been priced at ₹5900 and the Sandisk has a price of ₹6000 making the differences very negligible.

The SanDisk Extreme Pro 128GB microSDXC V30 UHS-I U3 performed quite well in the parameters tests. In the CDM test, Sandisk recorded the better write speed among the two at 27.01 MB/s, but a lower read speed of 36.85 MB/s, which is just slightly lesser than the Kingston. In the Folder Transfer test, Kingston clocked a read time of 1 minute and 34 seconds, and a write time of 1 minute and 4 seconds. For the In-camera performance test too, Sandisk scored 6.83 fps. Though Kingston had pretty much matched up to the performance in most of the parameters including the price, the Sandisk takes it away with its slight edge in performance values, thus becoming the winner of this year's micro sd card shootout.

All-in-One Printer **Shootout**

Even the best photographs on display are only as good as the printers that they're printed on. With technology moving at a fast pace in the printing industry as well, choosing the right product has become more difficult than ever. Like every year, to make your decision easier, we asked the manufacturers to send us their best All-in-One printers to test under various parameters, and find the best one to buy.

PRICE
₹17,499

PRICE
₹9,182

PRICE
₹11,255

Parameters

With the constant technological developments, it has become necessary to evolve in terms of testing parameters. Our parameters last year were stringent, and this year too we will adhere to the same.

1. Performance
   • Print Quality (specifically designed templates)
   • Pages Per Minute (PPM) (under various sizes)
   • Images Per Minute (IPM) (new industry standard)
2. Set up, ease of use and installation
3. Value for money (consumables and overall)

The price range for the printers had been kept between ₹9,000 to ₹18,000

Contenders

We have Epson, HP and Canon battling it out this year in the All-in-One printer shootout category.

• EPSON L4160
• HP Advantage 5075
• Canon Pixma G2010

Overview

EPSON L4160

The EPSON L4160 is an all-in-one printer featuring EPSON's proprietary Ink Tank system prints media with a maximum resolution of 5760 x 1440 dpi. Instead of using the regular ink cartridges, the L4160 uses Epson's ink bottles spill-free refilling with individual bottles which have unique nozzles that fit only into their respective tanks and which print up to 7500 pages in monochrome and 6000 pages in colour prints. The L4160 boasts of printing speed of up to 33 ppm for black and 15 ppm for colour. The L4160 has a 1.44" colour LCD screen for easy operation and selection images for printing from the memory card slot.

Canon Pixma G2010

The Canon Pixma G2010 is an all-in-one printer with print, copy and scan features and includes an Ink-tank system for maximum productivity. The Ink-tank system is an integrated one and does not look out of shape from the printer body as well. It has a print speed of 5 ipm for colour prints and 8.8 ipm for black and white prints. The optical scanner has a maximum resolution of 600x1200dpi. The 1.2 inch LCD screen along with an array of buttons makes it easy to operate the printer. The Canon Pixma G2010 however misses out on the wireless connectivity front which is quite a feature these days in printers and all in one devices. Wireless connectivity also helps in reducing the time taken for printing and can be printed directly without using a computer.

HP Deskjet Advantage 5075

The HP Deskjet Advantage 5075 is an all-in-one printer with HP's ink cartridge system. It has a maximum resolution of 4800 (horizontal) x 1200 (vertical) dpi. Its specified print speed for B/W and colour document is up to 10 ipm and 7 ipm respectively. The copy speed of the printer is up to 3 ppm on a colour document and and ppm on a black and white document. The HP Deskjet Advantage 5075 comes with a 5.5cm Hi-resolution mono LCD screen which is touch enabled, making it easier to scroll through menus. The printer is equipped with Wi-Fi connectivity and prints from Apple, Android, and Windows devices directly.

All the three printers print up to a maximum of A4 size.

Set-up Time

The set-up time includes the amount of time taken for the entire installation process of the printer. This includes everything, from the time the CD is inserted inside the computer till the printer is ready to use. In some cases, it can also include the time required in downloading additonal programmes during the installation procedure loading the printers with cartridges till the printer warms up with its first test print.

EPSON L4160

The Epson printer clocked a total time of 11 minutes and 15 seconds in the installation process. The installation was not too complicated. The L4010 printer design is quite clean and simple, and the printer incorporates a 1.44" colour LCD screen. It displays various different functions like scan, copy, print images from memory card etc. The ink-tank is incorporated in the body which makes it a lot more compact and easy to handle design-wise. The refilling of the ink-tanks are pretty easy as the ink comes in unspillable bottles and also an easy access to the ink-tanks. The L4160 besides the screen, has a power button, a home button, 4-way direction buttons, an 'OK' and a start and stop/return button.

HP Deskjet 5075

Comparatively faster, the HP Deskjet 5075 clocked a time of 7 minutes 19 seconds to install. The set-up was quite simple as well. The printer design is sleek and compact, and quite modern looking. We were very impressed by its small size, as it saves a lot of desk space. The printer has an ink cartridge system which can be installed from front of printer by opening the front lid.

Canon Pixma G2010

The Canon Pixma G2010 took a total of 17 minutes and 48 seconds to set up. This time includes download of additonal softwares during the installation procedure. The Canon Pixma G2010 is quite easy to set-up. The ink-tank system which is incorporated in the design of the printer makes it easier to handle and also saves some space on the desk. Overall, the Canon Pixma G2010 seems to be built for the purpose.

Set up and Installation
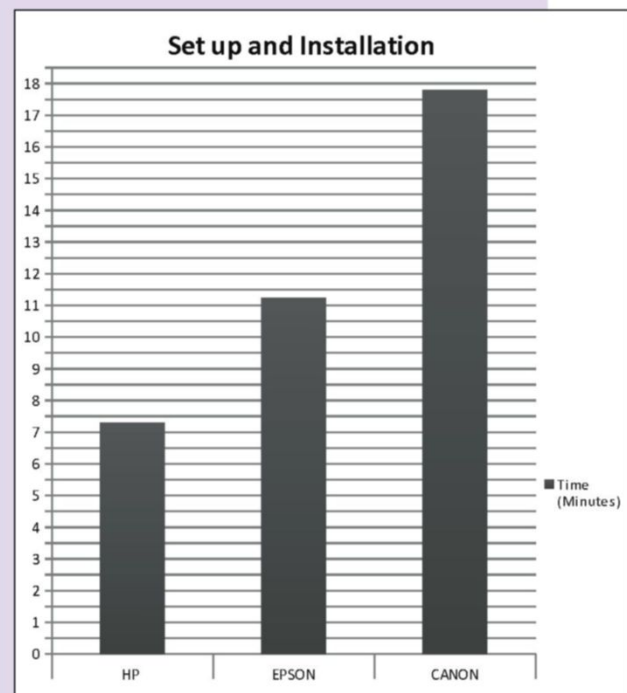
Colour Template A4 Print

This involves testing the output of each printer with a colour template designed by us. The performance is measured in terms of colour reproduction, clarity and sharpness.

EPSON L4160

The EPSON printer clocked 26 seconds to print the colour A4 template. The print quality was decent, but it was a little dull. Some of the hues and tones were printed slightly different.

HP Deskjet 5075

The HP printer clocked 54 seconds to print the template. When it comes to print quality, the HP was closer to the original. The colours was vivid.

Canon Pixma G2010

The Canon Pixma G2010 clocked 42 seconds to print the A4 colour template. The colours were most accurate the prints was sharp.

Original

Epson

HP

Canon
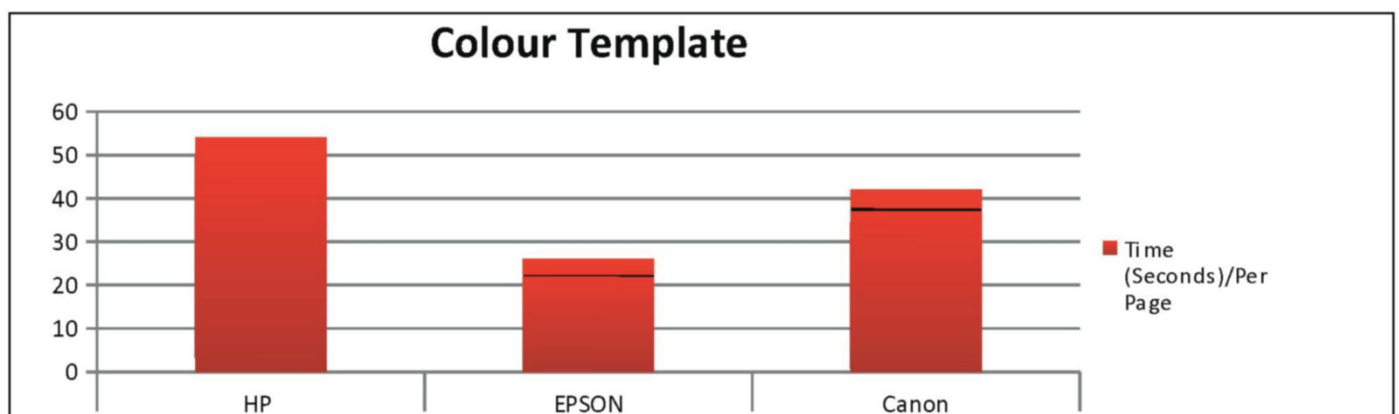
Colour Template

B&W Template A4 Print

Similar to the colour template, the B&W template is designed to measure the performance of the individual printers in terms of their monochrome printing quality.

HP Deskjet 5075

HP clocked 34 secs seconds to print the black and white template. HP's printing quality here wasnt at par. The blacks were dark and the details were quite accurate.

EPSON L4160

The EPSON printer clocked 26 seconds while printing the black and white template. The overall print quality was decent, however the reproduction of the blacks were much lighter than the actual template.

Canon Pixma G2010

The Canon Pixma G2010 took a total of 38 seconds to print the black and white A4 template. The print quality was decent but the blacks were overpowering, which usually makes an image loose details in the shadows. However the overall print quality was very close to expected.

Original

Epson

HP
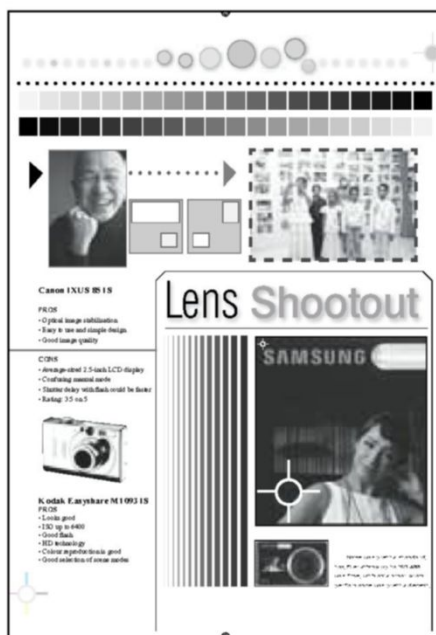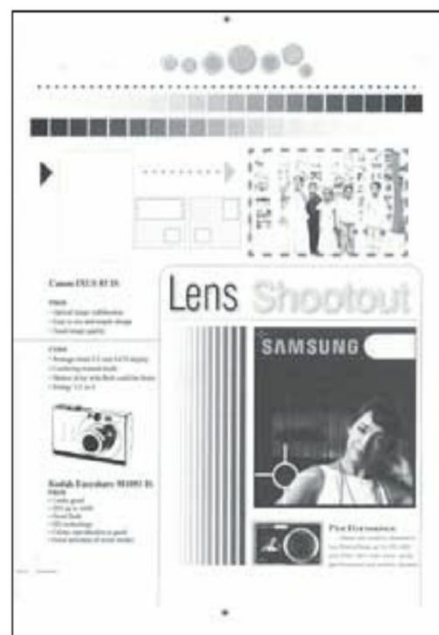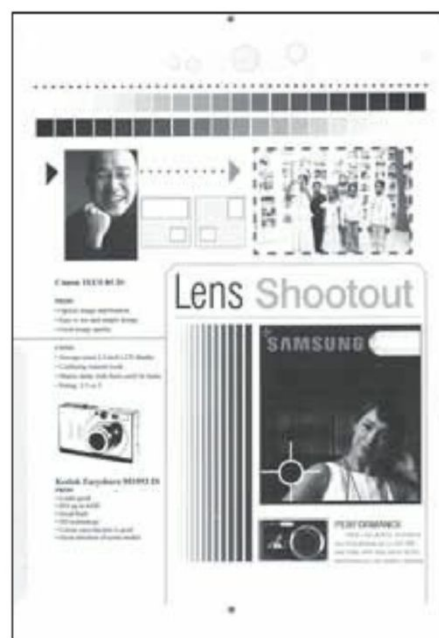
Canon
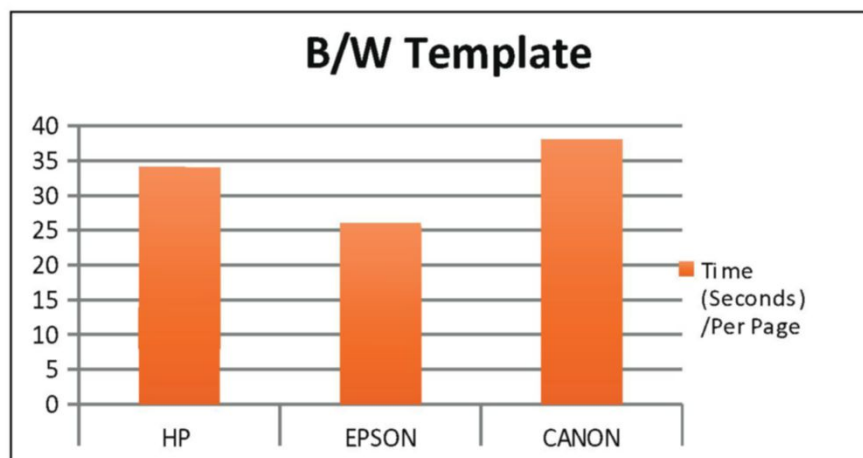
B/W Template

Colour A4 Photo

For this test, we picked a colourful photograph, which also included immense details. The test follows the same process of the earlier template tests, and each of the printers' output is gauged for reproduction of colours and details, as well as the time taken to print. The Epson L4160 took 4 minutes 21 seconds to print the image, whereas HP Deskjet Advantage 5075 took 3 minutes 49 seconds to print the picture. The Canon Pixma G2010 took a total of 2 minutes and 41 seconds to print the image. All the images were printed on a glossy media of A4 size. The outputs from the theree printers were not quite accurate, but Epson was very light not being close to the original. The HP output was oversaturated, and was not close to the original but the output from the Canon Pixma G2010 was the closest in terms of ture colour reproduction, colour saturation, sharpness and overall print quality.

Original

Epson

HP

Canon

Colour Photo A4 Print
Time (Minutes)/ Per Page
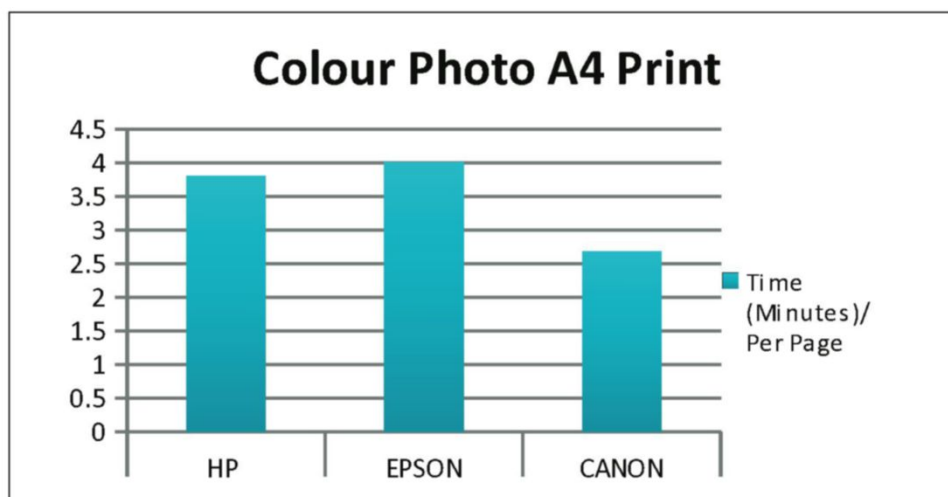
Colour Text Template A4 Print

This test was included by us keeping in mind the needs of corporate users, who generally have more of textual printing matter. We've designed a template with just text to test the printers for clarity, speed and alignment of the text.

EPSON L4160

The Epson L4010 printer took 22 seconds to print the template. It had quite a decent output, and the colour reproduction was good, but did not match the original template. The overall print had a lack of sharpness in it.

HP Deskjet Advantage 5075

The HP Deskjet Advantage printer recorded a time of 34 seconds to print the image. The colour text template A4 print quality was quite vivid and well-saturated.

Canon G 2010

The Canon G2010 clocked a total time of 38 seconds to print the colour A4 text template. The overall print from the canon was very close to the original with rightly reproduced colours and sharpness.

Original

Epson

HP

Canon

Colour Text
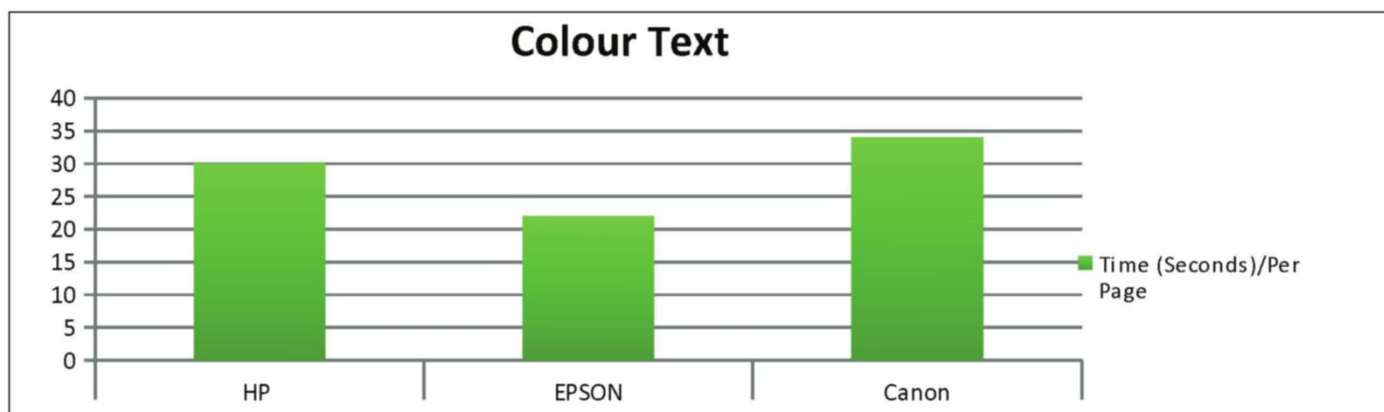
Images Per Minute (IPM) Test

The IPM test is the industry standard to rate printers on, and we have been conducting it for the past two years now. We put the printers to test using the First Set Out Time (FSOT) on short, medium and long jobs, and following are the results.
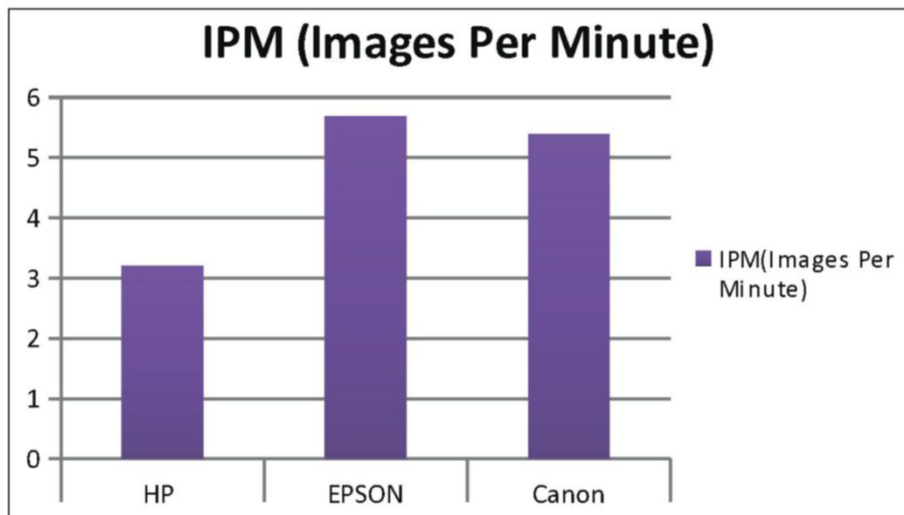
WHAT IS IPM?

IPM or Images Per Minute is the new industry measurement standard that offers a consistent procedure for testing and comparing print speeds of different printers. The printers are tested as soon as they come out of the box, without changing its settings at all.

There are three ways to test the printers on their IPM. First Set Out Time (FSOT) measures the time from the beginning of the printing process to the moment the fourth page is out in the output tray. Effective Throughput (EFTP) is the time from the beginning of the process to the moment the last page of the printing job comes in the output tray. In Estimated Saturated Throughput (ESAT) the time from the moment the fourth page goes to the output tray to the time the last page of the printing job is collected is measured.

In our test, we conducted the FSOT type, under three types of printing jobs. They included Short Job (printing one 4-page file), Medium Job (printing one 4-page file, then repeatedly printing that for 30 seconds more), and Long Job (printing one 4-page file, then repeatedly printing that for another 4 minutes).

EPSON L4160
The EPSON printer fared the best in this test. It could print 39 pages in 6 minutes and 51 seconds. It recorded an IPM of 5.69.
Canon Pixma G2010
The Canon Pixma G2010 fared well, just after the Epson and could print 37 pages in 6 minutes and 52 seconds.
HP Deskjet Advantage 5075
The HP printer fared average, having recorded an IPM of 3.2, printing 24 pages in 7 minutes and 30 seconds.The HP was the slowest of the three printers.

Copy Test

For the copy test, we used the text template we designed earlier for the test, and tested the printers on how quickly they were able to copy it in colour as well as black and white.
EPSON L4160
The EPSON printer recorded 13.6 seconds in the black and white copy and 35 seconds in the colour copy. The Epson was the fastest of the lot.
HP Deskjet Advantage 5075
In the copy test, HP clocked a time of 18.3 seconds in black and white copy, and 35.6 seconds in colour copy.
Canon Pixma G2010
In the copy test, the Canon clocked a time of 18.2 seconds in black and white copy, and 42.9 seconds in colour copy coming third in the copy test.
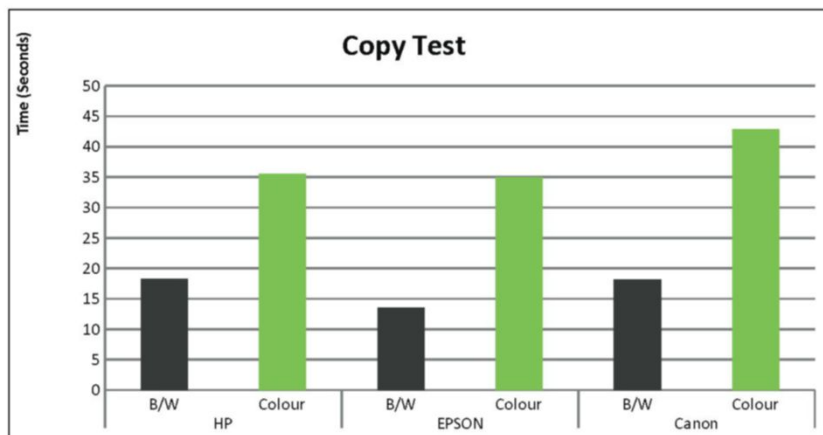
Scan Test

This test was conducted by recording time taken to scan one sheet of size A4 in colour.

EPSON L4160

The EPSON printer took 23.74 seconds to scan.

HP Deskjet Advantage 5075

HP was faster in the scan test, clocking 19.44 seconds.

Canon Pixma G2010

The Canon Pixma G2010 was the fastest of the three clocking a time of 13.36 seconds.
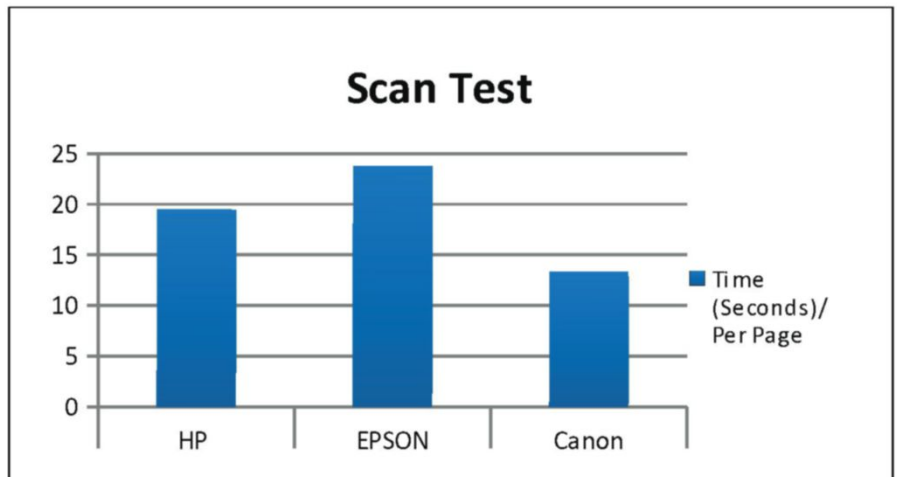
Conclusion

The Canon Pixma G2010 and the HP Desk Advantage 5075 were neck to neck when it came to performing. The overall print quality was much higher and true on both the printers including the black and white and colour text templates. However, The HP printer had a slight edge over the Canon and is the winner of the all-in-one printer shootout with the HP Deskjet Advantage 5075 just trailing behind it.

EPSON L4160 ₹17299

The EPSON L4160, performed well in most categories with decent quality prints, and aced the tests when it came to timings. However, Epson's colour output in some of the cases was slightly dull. With a price tag of ₹17,499 it costs more than the contenders, however, prints in half the time.

Canon Pixma G2010 ₹11,255

The Canon Pixma G2010 is the second among the three priced at ₹11,255. The overall performance is satisfactory and it gives good output to the colour and images that it prints. On the timings department the Canon took the most amount of time to set up. However the Canon scans and scanning speeds were quite fast.

HP Deskjet Advantage 5075 ₹9,182

With a price tag of ₹9,182, the HP Deskjet 3776 did not ace most of the tests, except the scan test when it came to the print time. It was slower than the Epson contender. It had a lower IPM score than the Epson printer as well. However, in a few tests the HP outputs were quite good, and comparitively accurate to the original. The printer also costs less than half of the contender, and has a sleek compact body, with a modern design. It did a great job even when falling short when it came to timings, delivered good prints all over.

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Festivals of *India*
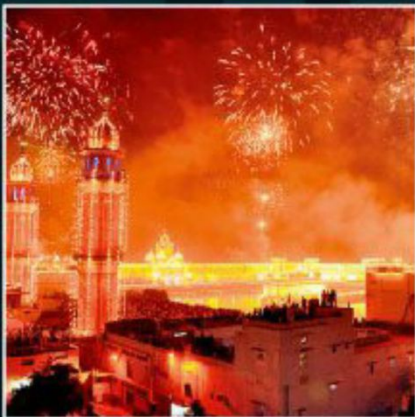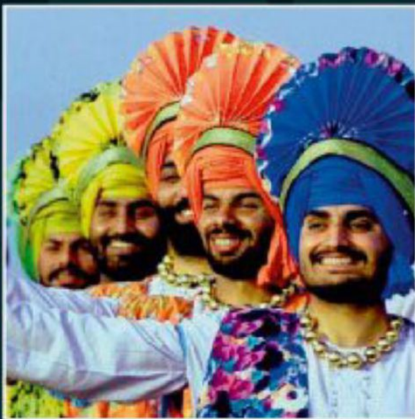
Telling visual stories of the diverse cultures and festivals celebrated in India

Exif Info:
Camera: Canon EOS 6D Mark II
Shutter Speed: 1/320 sec
Aperture value: f/9
ISO: 640
Focal Length: 24.0 mm

Shot with
Canon
EOS 6D Mark II

Specifications

- 26.2MP Full-frame CMOS Sensor
- Dual Pixel CMOS AF with Phase-detection & Full HD 60p
- 45-point all cross-type AF
- High-Speed Continuous Shooting at up to 6.5 fps
- DIGIC 7 Image Processor
- ISO 100 – 40000 (expandable to 102400)
- Vari-angle Touch Screen, 3.0-inch LCD
- Dust- & Water-resistant.
- GPS, Wi-Fi, NFC and Bluetooth low energy

Raksha Bandhan
- The blind faith in brothers

*R*aksha Bandhan, also *Rakshabandhan*, or simply *Rakhi*, is an Indian and Nepalese festival centred around the tying of a thread, bracelet or talisman on the wrist as a form of bond and ritual protection. The fast, festivals and mythological legends are outcome of spiritual doctrines. *Shravan* (July- August) is a Hindu calendar month of celebrations and many Hindu festivals take place during that time. On the full moon day of Shravan, the annual festival of *Raksha Bandhan* takes place. The ritual dictates that the sister is to tie a celebratory thread on her brother's wrist and apply a sacred *Tilak* and the brother in turn gives gifts and money as a token of affection and pledges to protect the honour of their sister in need.

The expression "*Raksha Bandhan*", which in Sanskrit means, literally, "the bond of protection, obligation, or care," is now principally applied to this ritual. It has also applied to a similar ritual in which a domestic priest ties string bracelets on the wrists of his patrons and receives gifts of money. A ritual associated with *Saluno* includes the sisters placing shoots of barley behind the ears of their brothers. For the last 2000 years or so, this festival was celebrated in a different way and family priests used to come to the house and tie the thread and apply *Tilak* to each and every person but with time the festivities have changed. *Raksha Bandhan* is also known as *Vish Torak* (Destroyer of Venom), *Punya Pradayak* (Bestower of Boons) and *Pap Nashak* (Destroyer of Sin) and thus has a much deeper spiritual significance than just a brother and a sister's bond.

History also has mention of this festival and there are several origin stories of the same. The most common one dates back to the Mughal era.

After Babur had captured the throne of Delhi in 1526 AD, Rana Sangram Singh or Rana Sanga of Mewar lead a confederation of Rajput Kings against Babur to capture the throne of Delhi. Rani Karnavati took charge of the regency thereafter. She understood that this war could not be won alone by her and her army and thus wrote to the nobles to come forward for the sake of the honour of the Sisodias, and was able to persuade the nobles to fight for Mewar, if not for Vikramaditya. Their sole condition was that Vikramaditya and Uday Singh should go to Bundi during the war for their personal safety. Rani also sent a cotton thread (*Rakhi*) to Mughal Emperor Humayun, calling him a brother and asking for help. Thus, her name became irrevocably linked to the festival of *Raksha Bandhan*.

Rakhis are known for their colourful appearance and different and intricate designs. But this month, we decided to not shoot this festival in a conventional way. This year, we wanted to know

who are behind making these beautiful pieces of art that we so preciously don on our wrist on *Rakhi Purnima*. On our quest to look for the makers, we found an interesting pocket in Gandhinagar Gujarat where students from an NGO Trust and School were making *Rakhi*. While these *Rakhis* are, as we conventionally think, a confluence of eyes, taste and craftsmanship, the women making these *Rakhis* were visually challenged and only relied on their training for the same. The Andh Kanya Prakash Gruh School, like every year, made rakhis for people as a part of their vocational training. As I reached the school, I was greeted by a huge entrance and a makeshift stall at the entrance selling *Rakhis*. There were quite a few people buying them too. At present, the school hosts 180 visually impared girls who live in the hostel to get education and training for their all round development. Elementary education from Nursery to 8th grade is done in Braille and there are different vocational training courses for older

Exif Info:
Camera: Canon EOS 6D Mark II
Shutter Speed: 1/500 sec
Aperture value: f/2.8
ISO: 2500
Focal Length: 110.0 mm

Exif Info:
Camera: Canon EOS 6D Mark II
Shutter Speed: 1/640 sec
Aperture value: f/2.8
ISO: 2500
Focal Length: 150.0 mm

girls. For their higher education, the girls are then sent to regular schools. The Andh Kanya Prakash Gruh school also teaches music, yoga, Hindi, computer courses and a lot more. The students are taught mobility for which the school has a specially designed mobility park on the campus. Vocational training includes file making, weaving and making door mats as well. Medical camps, eye donation camps, vision correction surgeries and other medical treatments are also taken care of by the institution.

On speaking to Mrs. Smitaben Shah, I was informed that the student made *Rakhis* are distributed to various states including Punjab, Maharashtra and have even reached the Indian Army! The intricate work of the students and the efficiency with which they worked on creating the beautiful pieces were nothing short of amazing. The girls sat in a round circle at the center of the room

Exif Info:
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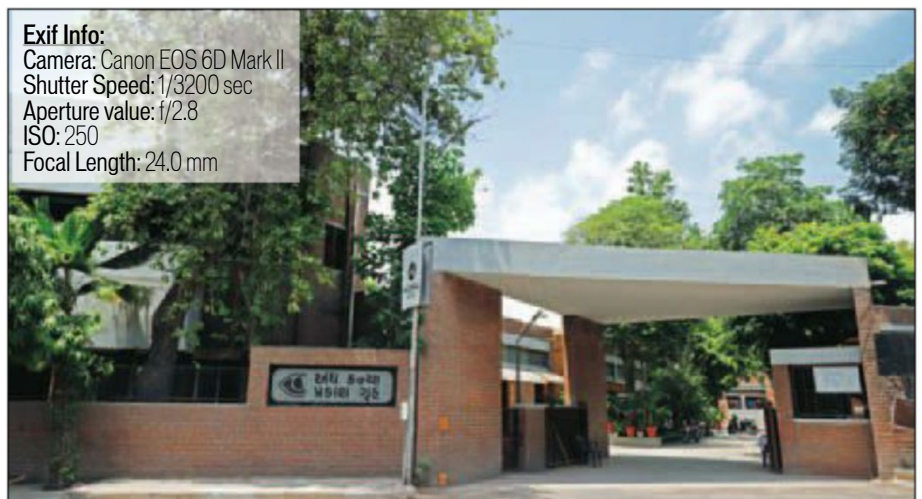
and helped each other to find the right beads and threads, and worked together to create an amazing end product. The *Rakhi* costs range from as low as ₹10 to 50. While the world celebrates *Rakhi* and brothers all across vow to protect their sisters, these beautiful young minds create art in a quiet corner of the capital city of Gujarat.

The neatly maintained hostels, the music room, the quiet classrooms with extremely well behaved children all come together in this school and teaches us how we can make a better world for young souls. This *Rakhi*, let us take a vow to protect these young girls and think of them as our own sisters as they fight darkness and find a new light in this already dark and scary world.

TEXT AND IMAGES: SOURADEEP ROY

TECHNOLOGY
& PROS
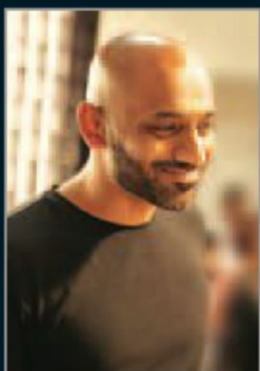
Arjun Mark

Joshi Daniel

Slava Thisset

Shreya Sen
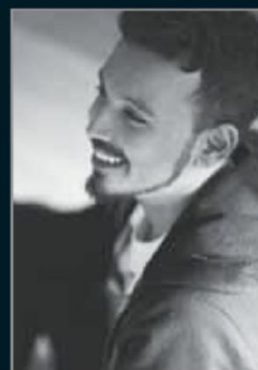
Rohan Shrestha

Photography and technology are like parts of the same coin, with the latter being indispensable for the former. The latest technological inroads into photography never cease to be a matter of utmost interest and importance to photographers. From sharing anecdotes of how technology salvaged them to describing how detrimental it is to their work, we are talking to five prolific photographers about technology this month.

Arjun Mark

Ever since taking up visual arts and getting introduced to photography in college, objects around him ceased to be impassive objects; they were reinvigorated as ideas. Arjun Mark, based in Mumbai, is a photographer who doesn't like to be "pinned down with a specific style" and who considers photography the premise of his artistic exploration. "Sometimes you need to keep reinventing your style of work. I like to be more versatile. However, I create a specific mood in my pictures that is trademark of my style; most of my pictures have a certain spontaneity with

the subjects I shoot," he says.

Arjun also believes that photography enabled him to discern another altogether unexpected side of himself. His journey as a photographer had been riddled with struggles for several years, before he could crack into the "highly competitive and unforgiving mainstream commercial photography industry". "As a photographer, you are always on your own and sometimes it is the independence that can be intimidating. The other perpetual impediment is the encounter with the 'no budget' client. The notion that photography comes cheap is disrespectful, utterly exploitative and humiliates me. In my

opinion, these are the severe adversaries of this industry. However, for me it has been very challenging and exciting throughout. I couldn't have asked for a more creatively satisfying career," he elaborates. "There is no substitute for hard work and humility is an invaluable virtue. Irrespective of whether you are 'successful', it is important to remain humble and receptive. This is something that has always been of phenomenal pertinence to me," he adds.

Arjun believes that the Canon 35 mm DSLR is one of the most versatile cameras one could buy, and he always shoots with it as opposed to any other format. Canon 85 mm f/1.2 is one of his favourite lenses. Broncolor is the studio lighting system he has been using for years and cannot do without. "My go-to editing software is Adobe Photoshop for all my fashion, skin and hair retouching jobs, however, most of my initial colours corrections are made with Capture One Pro. This is all that I use, and I usually don't relay on too many accessories beyond these and try to keep it as simple as possible," he explains.

When asked about the role of technology in his work flow, Arjun gives a detailed and eloquent answer. "I was never a tech person until a few years ago when I realised that technology is taking over at a really fast pace. Technology undoubtedly has had a tremendous role to play in the transformation of photography over the decade. Not only

did technology replace analogue with the digital format in cameras, they also brought in advancements in the lighting technology and editing softwares that enables photographers to become a lot more versatile and expand their creative vision." Using modern technology as a part of his current work flow not only allows "further creative freedom" but makes his workflow easier, as otherwise it would have been "time consuming or painful". "I'm sure everyone has a story to tell when technology was their saving grace! One such panic situation would be when I lost valuable data on a hard drive and had to only thrive on technology to retrieve the lost data from the corrupt hard drive," he reminisces.

"Commercial photography is closely connected with the advertising world. Advertising photography demands us to meet tight deadlines and challenging assignments...Let it be guerrilla style shooting with a super compact camera in a public place (where you can't afford to draw attention), yet have to deliver uncompromised imagery in super hi-resolution, shooting a model underwater or having just ten minutes to shoot with a celebrity and having to make the best of it, technology has played an important part for photographers to meet such demanding requirements with a lot more ease, efficiency and reliability," he says.

Arjun believes that in the current day, "photography is not just photography,

but can be termed digital imagery". "Photographs are no longer pictures that come out straight out from the camera. Considerable advancements have been made in the post-production world and these days post-production has become almost as important as photography itself. People are constantly evolving and exploring new techniques and setting new standards in the world of digital image making," he observes. He loves to use new technology, though he adds that he may not be the first one to have tried it. He uses it "just enough to keep up with the world", though he is not someone who would "constantly depend or thrive on technology" for his

work as he feels too much of a reliance on it would denude his photography of its essence. "On the contrary, one could create beautiful visuals just using technology. However, everyone's take on this can be very subjective to one's own vision," he discerns.

Arjun is also of the belief that keeping up to date when it comes to technology is important. "If you don't keep up, you will be left behind," he adds. He also believes that technology is an important ingredient in the current photography scenario, regardless of whether the medium is used for art, mainstream or commercial jobs. For amateurs who are looking forward to taking up photography as a serious career, he recommends to "not totally thrive on technology initially as this would make one's work flow way too easy" and that they can possibly miss out on learning the essential fundamentals of photography. "Nevertheless, once they have mastered the basics, they should undoubtedly use technology to their advantage to strengthen their work flow and to further expand their creative possibilities," he says. "With the popularity of online digital technology, social media has become a tempting platform for photographers to promote their talents online. The platform opens a whole new perspective to photographers to explore and easily reach more audiences than they could have imagined," he concludes.
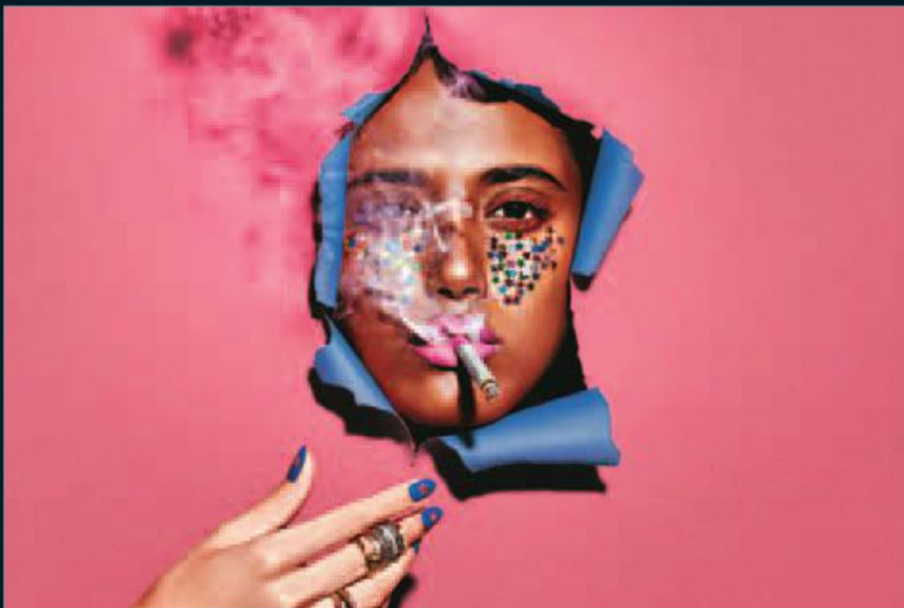
TEXT: NANDANA JAMES

Joshi Daniel

Some faces are animated and expressive, some stare stonily back at you, some are flashing eye crinkling smiles, some are utterly inscrutable, while there is one with what seems like the obscure remnants of tears. Such is the eclectic mix of vibrant countenances, emotions and the stories that they bespeak playing out across Joshi Daniel's work.

Joshi has an affinity to shooting portraits and images in black and white. "Photography is a way for me to express myself by being a good person and being less selfish," he says, the utter simplicity of this statement not at all effacing the sublime thought underpinning it. He likes photographs that "can talk without the need of a caption and which makes the viewer talk or pause for a moment to enjoy or interpret the photo." Originally from Kerala, he wanted to do fashion/glamour photography when he started photography. "So I went to Mumbai from Kerala. I had so many ideas in my mind and wanted to experiment. But it was so hard to get someone to pose for me. Mumbai has so many things happening though, especially on the streets. So I started shooting street photos. I loved faces, so I started shooting street portraits. I used a cheap telephoto lens at that time, but I was happy with the results because most of the expressions were natural. Later, I started focusing on portraits," he explains.

Joshi's reminiscences of the changes that have traversed in the way he stores, shares and edits photos itself speak volumes about the almost effortless, yet gargantuan ways in which technology has created ripples in photography and his work flow. When he started photography, he used to share what he shot with his friends when they visited home and would share his portfolio on compact disks. Fast forward to ten years ago when he started using his photo blog as his portfolio. He later started using Instagram to post mobile photos and now, images from his GoPro.
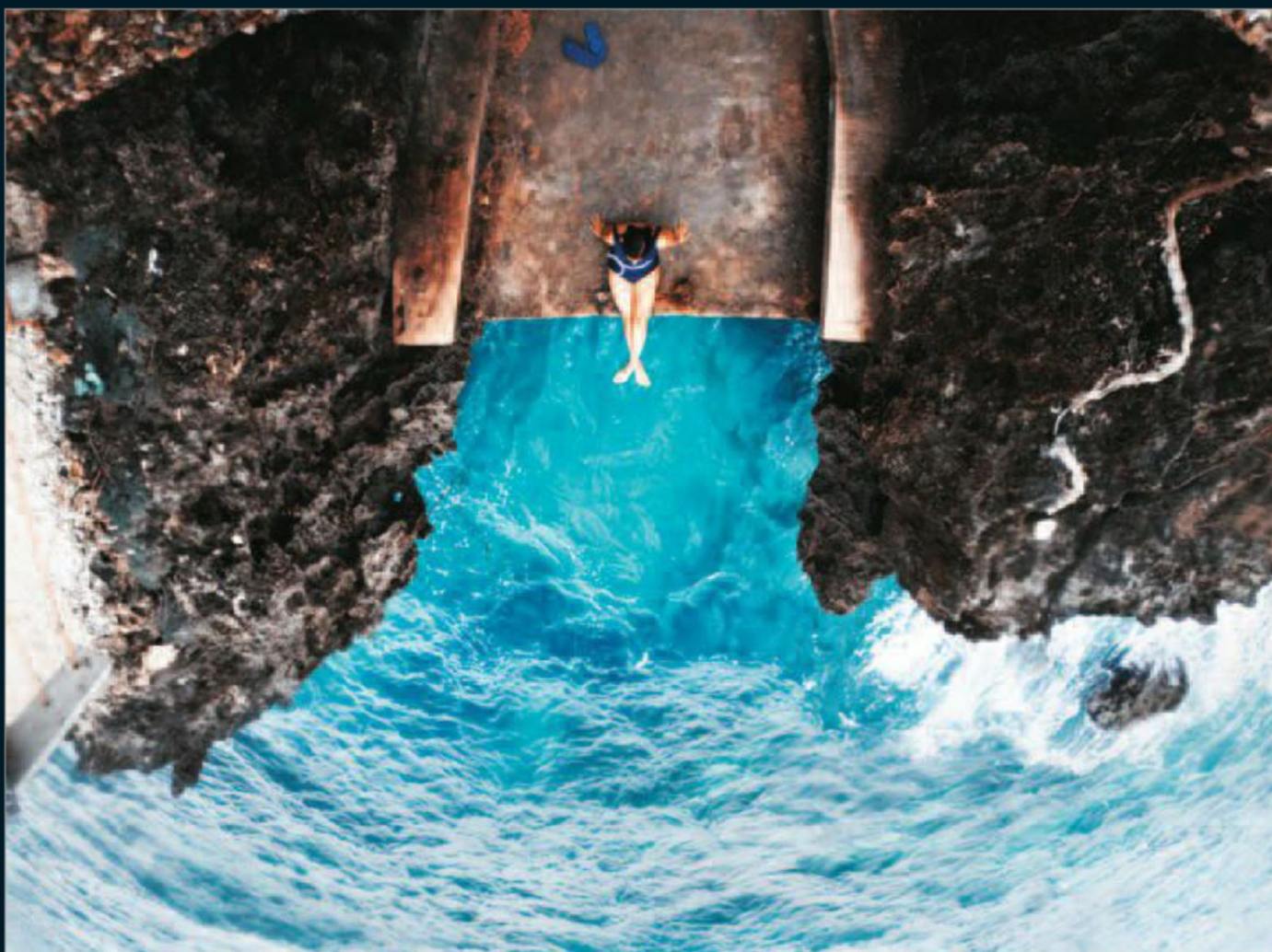
"Even editing can be done on-the-go on a mobile," he explains. However, he is "not desperate to buy new gadgets", as he prefers to travel light, though he does like trying new things which "makes him feel excited and fresh".

He further recalls that his first DSLR was a Nikon D70S, a 6 MP camera which "he loved and used for so many years". He also used iPhones to capture landscape photos during his travels. He started using a GoPro by the end of 2015 to document his travels. "GoPro helped me with capturing things that I could never capture with a DSLR or phone camera. It helps me to showcase my travel experiences," he elaborates. He mostly uses a full frame Nikon DSLR with a 28mm lens for his portraits, while he earlier used to shoot most of his portraits on an 85mm lens.

"In 2017, I started a project called the 28mm Portraits Project. Here, I shoot distorted close portraits, a challenging thing because I have to get so close to cover the frame and yet make sure the person I am shooting is comfortable and relaxed. Recently, I have started shooting with a Google Pixel phone which has an excellent camera. I mostly use Photoshop to edit my images. On my phone, I use Adobe Lightroom, Snapseed and VSCO to edit," he says.

Joshi likes to have a human element in his images, and that is why he only posts images of people on his photoblog. Previously, for shooting something like that, he used to face the difficulty of finding someone else to pose. "So I ended up shooting self-portraits with a GoPro and used my phone to wirelessly trigger the camera or I use time-lapse photo mode or end up framing with just my hands or feet in the frame. This made travel easy for me," he explains, about one of the many times technology has come to his rescue and eased things for him.

"Technology is changing and advancing so fast. One needs to be happy with the gears they have in the bag right now. The priority should be to create better and different images than thinking about the gears that you don't have," Joshi cautions our readers.

TEXT: NANDANA JAMES

Slava Thisset
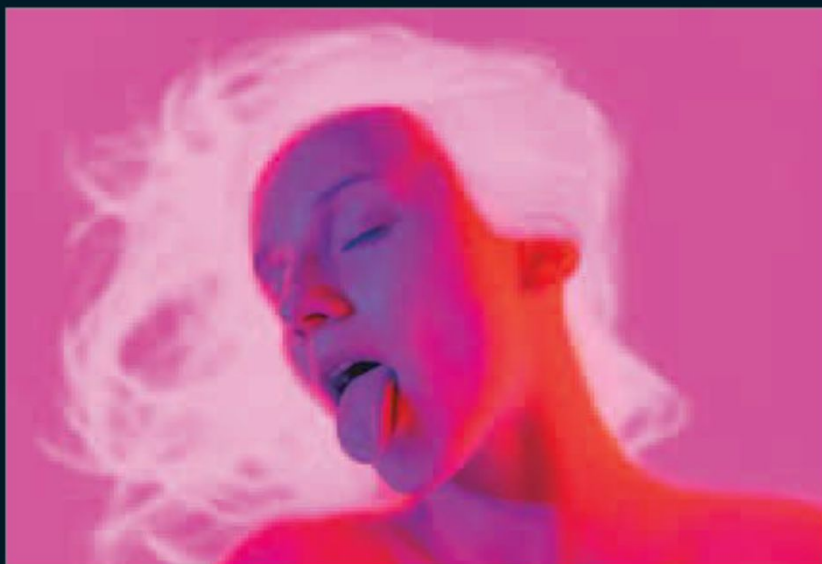
"For me, photography is a way to get closer to what I dream about," says Slava Thisset, whose work constitutes stark fluorescent neon hues, makeup and body paint ridden subjects, contrasting colours and interplays of lighting and post-producion techniques. A photographer based in Sochi, Russia, his work is an ingenious amalgamation of digital art and photography. He has an affinity towards science fiction and an alterantive view of the world around. "I believe that around us there is a lot of real magic to which you need sometimes to open with all the tenacity of imagination and ingenuity. I am glad that modern technologies enable all authors to create unique art," he elaborates.

Slava says that his favourite camera is the Canon 5D Mark 3, which was unfortunately stolen along with lenses two years ago. "The Canon has been my favorite for a long time. I still like to shoot on the Canon 600D from my friend Anton Zelensky, who kindly lends it to me when I ask him," he says. Using this camera, he had done a lot of projects, which are up on his page 'Behance'. However, he says he will still prefer the camera Sony Alpha 7R 2 and 3 as these cameras enable high resolution photos and videos, which he says is detrimental to him. "Until now, I borrowed the camera from my friends. It taught me to use the time with the camera in full. When I had my Canon 5D, it often lay idle, because I postponed shooting for later, because I could at any time take it in my hands and go to photograph. Now I don't know when my friend will ask to return him his camera and I shoot a lot," he adds. As for the other gadgets that aid his work, it includes a Sony VAIO computer in photoshop, for which he uses a graphics tablet Wacom. The tablet helps him to work on retouching or acid style in his photos. For storing photos and working PSD files, he uses removable hard drives with 1 terabyte of memory.

"A very important role in my work is my graphic tablet Wacom. With it, I can tweak anything in the image from retouching to transforming objects. I pay a lot of attention to working with colour in my works, but for example, sometimes I take photos in which the lighting on the object is not quite as I want and I finish the glow in Photoshop," Slava says, when asked about the role of technology in his work flow. He attributes his drawing skills to his mother who taught in the art studio. He further enhanced these skills at the art school he graduated from.

Slava feels that "trying new ways to solve problems in photography and fine arts in general is a great pleasure, because it's like discovering new worlds of fantasy" with reference to trying out new and untested technology. He is

also "always looking for new ways to improve his photos". "I'm going through all sorts of Photoshop filters for high-quality colour changes in my photos. To do this, I often combine my drawing skills with standard gradient maps in software. As for the real shooting, I use a special technique of lighting my girls-models and objects," he explains.

Slava also shares with us an anecdote of how technology came to his rescue, while he was starting to photograph using ultraviolet. He noticed how the light was reflected from different fluorescent objects on other objects and started to "ispozovat" in full scale. Now, he always uses ultraviolet lighting with self-made fluorescent reflectors in his photo and video shooting. His knwoledge and interest seeps through the insight he offers on how to use technology. Calling it "really very simple", he says that one just needs to see everything around one and interpret it for art. "The world gives a huge number of tips that have an endless number of combinations. It is very important to be open to new things and take on different things, and that is the only way you can see their actions from different angles and improve each of them. You never know what exactly will push you to a new idea, so it is important to be distracted from one kind of thing and do another, but always with pleasure and maximum attention," he concludes, on a rather profound note.

TEXT: NANDANA JAMES

Shreya Sen

Shreya Sen from Mumbai, is one of the top female wedding photographers of the country. She has worked with some fashion magazines like *Vogue*, *Filmfare*, *Elle* and others. She was awarded with the best wedding photographer of the year award by Weddingsutra for capturing the intimate beauty of Indian weddings. Photography was an extension of her purpose, to do something meaningful for others. Sen was studying to be a psychologist from York University, Canada. However the desire to push her right brain forward and understanding of human emotions lead her to this beautiful journey of photography.

In 2010, Sen was assisting renowned fashion and celebrity photographer R.Burman. Following which she started her own thing with SSP in 2011, specialising in weddings, pregnant women and babies. "It has been over six years in this field and not a day that goes by that I realise how I grateful I am to pursue what I love" said Sen on being asked about her journey as a photographer so far.

According to Sen, shooting weddings and intimate families has further driven the real purpose of photography for her." I truly believe photographs are almost time capsules that we can keep coming back to."

Sen has been a gadget junkie since she was young and she thinks it's due

to her father's influence on her while growing up. Though she admitted that over the years that interest over hoarding new accessories/equipment went down and she realized the downside of Gear Acquiring syndrome (GAS). "I approach technology as tools to simplify my process of creation and help me deliver the intended look and feel for my images, to successfully capture an in between moment/memory or strengthen the clarity of what I intentionally want to say through my images".

Sen has always been a "Canon Patron" and she finds their cameras and lenses to be apt for her. She currently

uses a Canon 5D Mark III and her second body is a Canon 6D. And her favourite lenses from her arsenal are her portrait ones, 50mm 1.2 and 85mm 1.2. "Since my style has always been to create soft, dreamy portraits the creamy bokeh in these lenses are just perfect for that". Apart from those lens, 24-70 2.8 is also what she likes to use because of their versatility. When it comes to her travel photos, she prefers canon 24mm or the 35mm. In terms of storage devices she has been using WD hard disks

The other gadgets that she depend on, are her speedlights. Recently Sen has started using the Godox V860ii flash, due

the lithium battery and faster recycle time. She also uses Magmods as a modifier for her lights.

"Currently the Yognou YN360 which is a reasonable option comparable to the Icelight is a great addition to my kit and I recently also picked up the Godox LC 500 lightwand that was just released" said Sen. She also is experimenting with the Profoto A1 which has been one of the most innovative lessons for her in tweaking of simple designs. "With its unique round head, light weight, insane recycle time and primarily beautiful quality of light with its smooth gradual light fall off, it definitely will sneak into being a part of most wedding photographer's rooster due to its versatility and ease of use though priced on the higher side" she commented.

Sen has been an Apple MacBook and desktop loyalist. She relies primarily on Lightroom and Photoshop in terms of her editing and Photomechanic for culling her images. She also uses Smugmug which has been a great platform for sharing the gallery with clients. "I am always excited to use new technology. Innovation, design and the physical product that comes about after months of research and testing is something I find extremely fascinating" said Sen on using new technology.

She advices our readers to not allow technology to limit them in anyway. "Do not think that you cannot create something until you have that amazing camera or lenses or unless you have that 80 grand light. Though platforms are a great way of getting our work out there, do not allow it to dictate your life" she concluded.

TEXT: ANIKET TIWARI

Rohan Shrestha

Rohan Shrestha wasn't inclined towards photography for the longest time as he says he was "scared". He started his professional career by 24 and when he began photography it meant something really different to him. "I was a kid and it was like a fairy-tale as you are pretty young. Now things are almost same but photography has become like an extension of my personality."

The journey of photography has been quite like an awakening for Rohan. From being an assistant at 19 to a fully professional photographer, he says he learnt a lot of things. And for Rohan, failures have been the biggest teacher. "I failed a lot in my life and I am happy that I did. It teaches you a lot. There so many avenues that you can discover as a photographer, and not for promotional gains, but as an artist. I feel very lucky that I was able to choose photography as an art form and a visual medium for my expression," says Rohan. He has always considered photography as a reflection of our mood. Whenever he looks back at his work in 2009 and 2010, he realises he was a very different sort of person. His approach, his choice of subjects and everything was according to that state of mind. "There was a lot of angst in me and I was very hot headed

as any 24-year-old would be at that age, but now I use much softer with my focus I am shooting with 1.2, and 1.4."

Of late, Rohan has been teaching too and he says with age, your style and perspective changes. "That maturity comes to you later and you realise what actually does make a good picture," he says.

Rohan is currently using the Fujifilm XT2, which he bought in New York last year. "I am in love with the camera because it's so compact. I am used to shooting with bulkier cameras but this model is giving me the same results and if I dare say, even better lenses" he says, about his current camera.

Rohan does lot of underwater photography and he loves to capture fishes. "I have been scuba diving for the last 15 years and that's like a different ball game" he says. He uses his Sony

RX100 V with the Nautican housing and lights for this purpose. He also using a Profoto A1 for his lighting. "I did an entire campaign and a cover shoot with the A1 lights," says Rohan.

"The emergence of digital software completely changed the game," says Rohan, on the importance of technology in his work. According to Rohan, in the space of commercial photography the need of digital software is immense. "Though there are purists who would argue that film is the best and I agree but I find film and digital are very different and the results are very different" says Rohan. Rohan says when it comes to digital, your documentation of photos becomes so easy, your colour grading and your time management becomes easier and lot of other things. "We can't discount what digital has done to the history" says Rohan.

On being asked how he is to using new technology and whether he is open to using new and untested technology, Rohan promptly says, "Absoutely". "I have to keep my mind open. I like to know about everything going on with both the sides (film and digital) and I think we need to keep learning as photographers," says Rohan.

When asked about any incidence where technology came to his aid, Rohan laughs and shares an instance with us. During Rohan's first photoshoot for a magazine years back, he had a funny incident. "I shot with a flash and I was shooting an actor. This was very early and probably the first big break of my life and I had set the ISO on to like 6400 or 3200. And I did the whole shoot, and my exposure was somewhere around 18 and I didn't understand why the light was so powerful. Eventually I did the whole shoot and the cameras back then were more sensitive that the current mirrorless ones and the photos were all grainy," he says. So, when Rohan came back from the shoot and checked the images he I started "panicking" as all the images were grainy. "Back then Photoshop CS2 was functional and I managed to remove 50-60% grains and that really saved me," he says. He says that when you look back, it seems very easy right now, but back then it was just an onset.

Rohan thinks that at the end of the day, technology is an add on, but not what makes a picture. "I stand by it, tech is always there and it always will be used but the thing is, everybody uses it, but what you shoot from your camera is your personality and the essence of your style of photography" he says.

TEXT: ANIKET TIWARI

As we celebrated our 72nd Independence Day this year, we headed out to partake in the celebrations unravelling at the Western Railway headquarters in Churchgate, Mumbai. Here are some of the snippets from the day, as the flag was hoisted and and as a cavalcade of officers marched to commemorate the day. The celebrations culminated on a profound note with a motorcade by the officers.

How has technology influenced photography
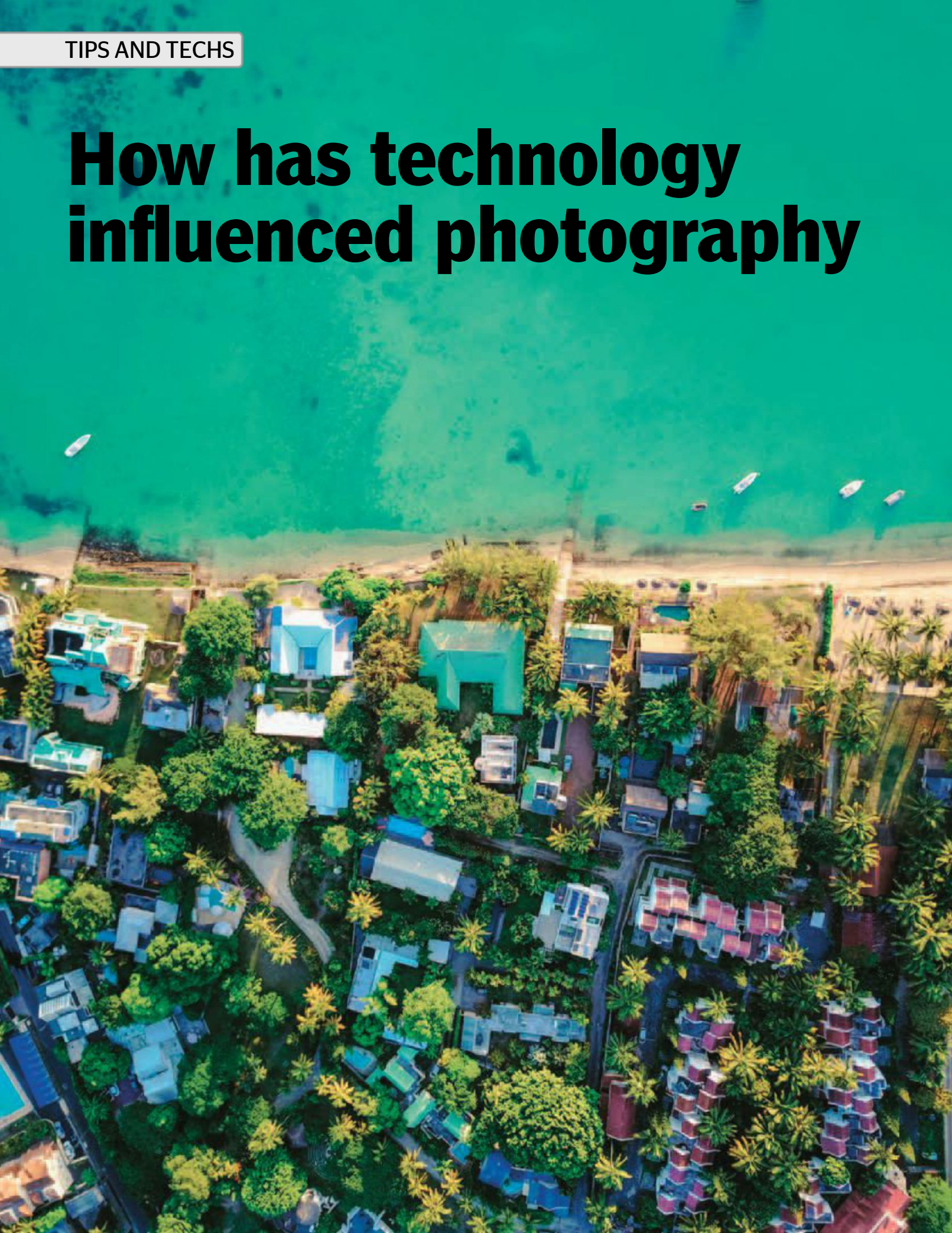
Technology is changing rapidly as every day, something new pops up and makes news. Be it a new smartphone with a pop-up camera or a device which not only replaces your wrist watch but also adds many more features to it including cellular support. Technology is striving hard to get into every nook and corner of the world and with time, it will make the world even smaller.

Photography was invented in the 1830s and it revolutionised the art world. Soon with better and newer ways and methods of photography, there came the need for faster cameras and faster mediums which could bring the end result quicker than before. This led to the birth of the 35mm film and camera and it became an instant hit. Photography was seeing a rise as there were now many people who took to photography, especially photojournalism as a form of visual story telling. With time, 35mm analogue film cameras became better and manufacturers started developing new and latest technologies and started putting light meters which later supported TTL (Through The Lens) metering. This allowed many consumers to buy and shoot with manual cameras. Eventually, motor winders, data backs to hold more film, and several lenses and accessories were made to ease the long process of photographing to the final image.

The early 2000s saw a rise in the buying and selling of photography related equipment, cameras, lenses and film. Soon automated film cameras along with some digital cameras became widespread. It was sure that film usage would slowly decline and the rise of use of memory devices to store images will increase, eventually transitioning everything into digital. With the help of technology and modern means, photography has been influenced a lot especially since it makes things a lot easier. So people of all levels of skills began to experiment with photography. Photography has had a major influence from technology and its tools in the recent days, and we have noted some very important ones.

DSLRs

The 'D' before the SLR happened when digital sensors replaced 35mm film on the traditional film SLR cameras. However the sensors were smaller than the 35mm film size but was able to produce much more number of images due to its memory options. Soon DSLRs gained huge popularity and was widely appreciated by the professionals. However the cost of manufacturing and buying Digital SLR cameras was still high and most consumers would still have to wait until DSLRs became more accessible and competitive in pricing. However, with the rise of the DSLR cameras, the photography world expanded even more.

Storage and Sharing

The next big thing that technology has changed in photography is the storage and sharing part. The use of memory cards in our cameras is a great thing of ease. These small memory cards can store thousands of images without having to change over and over again. With more advanced technologies, manufacturers have beefed up the storage capacity of the cards without having to physically increase its size. Larger cards are great when shooting for long hours, especially videos, which take up a lot of storage space.

With the smaller and portable means of storage, baking up and sharing data became more easy and at present, data is being transferred even without removing the storage devices. These technologies include Bluetooth, WiFi and NFC (Near Field Communication)

which have made sharing and social media posts a breeze and can be done from anywhere without having the need of a computer.

Digital Marketing and Social Media

Digital marketing and marketing with the help of social media is one technological leap that sets everything apart. Nowadays, marketing campaigns and other related activities can be solely done with the help of digital avenues and social media. Social media sites and photo sharing sites allow users to upload, share and display their work with the entire world. This has shrunk the gap between a service provider and an end user. Marketing is also done online as companies have resorted to Facebook, Instagram, videos and motion graphics to display and market their products. Photography services and photographers have also concentrated on their online presence to influence more people which in return would get them more work .

Photo Editing

If you have known about film photography or ever used a camera with a film roll, you will know that after you shoot the film, you have to wait to see the images as the roll has to be sent to a photography lab to get it developed. Film can be developed only using proper techniques and needs various chemicals and solutions which turn the exposed film to the negatives. The negatives were later passed through an exlarger which would print the images onto a photo sensitive paper. This process is, however, time consuming, and there was no other way around it. Darkroom artists found out various ways to edit or enhance their images to an extent and make them look even better. It took a lot of printing and trial and error methods to get the final look of an image which would satisfy the photographer.

With digital technologies, photo editing has a new edge. You do not have to wait for too long before your image is actually shared on the web or any other platform. There are many photo editing applications which have eased the way images were being processed. There are much more number of tools and methods to edit and enhance the look and feel of the images. This enables photographers to take images even in the poorest conditions like lighting and still turn the images as deliverable.

Websites

Websites have been around since the birth of internet. We all have used various websites for our use and daily needs. From Google to Flickr, technology has bridged all the gaps. Websites have been a way of displaying a company's or an individual's profile for the entire world to see. There are many websites which allow you to create your own website or a blog using their pre-applied templates for design. Free websites are great for starters but you can have your own website which you can purchase for many major website service provider. Maintaining a website is
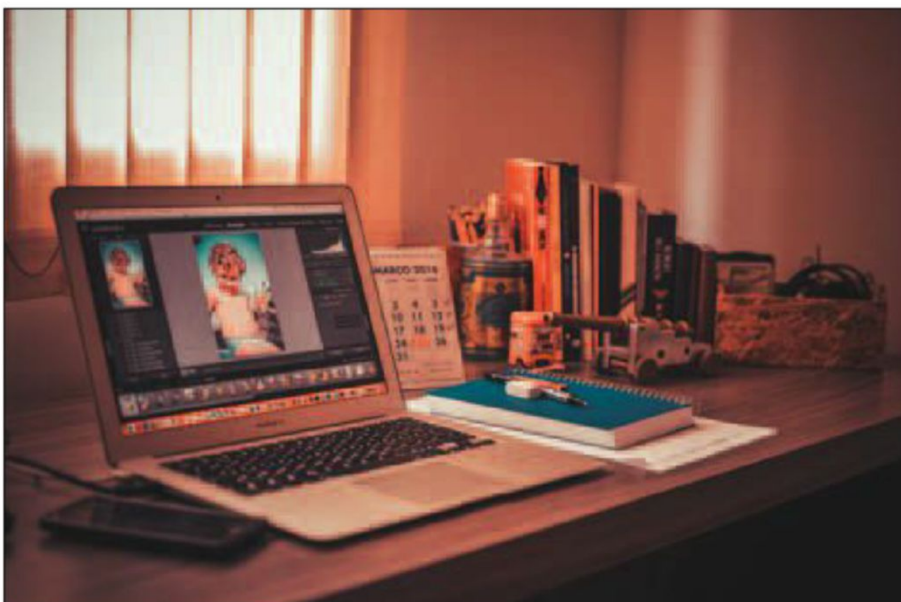
Ariel Photography

When technology grows, things become smaller. This is a perfect example for cameras. Cameras have become small, even smaller and the smallest ones can be found on the front of our smartphones. The good thing about small cameras is that they can be fixed anywhere. Smaller cameras instantly became a hit and then someone decided on flying a camera along with a flying ariel vehicle (Drone). With the drones, ariel imaging picked up as no one had ever seen such a new perspective. Ariel imaging had existed for a long time, but mostly for high budget productions where helicopters are flown with huge cameras and their operators to get the best quality footage. In 2018, a $500 drone can do what a camera laden helicopter cannot. It can fly in small spaces, take various angles, give direct video feedback and fly up to heights of 5000 meters up in the sky to capture breathtaking views. Cameras and remote controlled flying objects existed from a long time until someone decided to bring the two together and create a new dimension in photography. Ariel imaging by far is the best that technology has given to photography.

not too expensive these days. Websites are also an easy and effective way to display your work.

Photo Manipulation

Photo manipulation existed from the time of film photography. Which was extremely difficult to achieve then. However, photographers and artists alike would go to new levels to achieve any sort of manipulated images on film medium. With the change in photo editing, the photo manipulation had become easier. You could swap backgrounds, colour hair, even change black and white photographs to colour. Digital images can be heavily manipulated as they retain a lot of quality. Today's photo editing softwares have amazing features which make it easier to create new illusions using graphics and images.
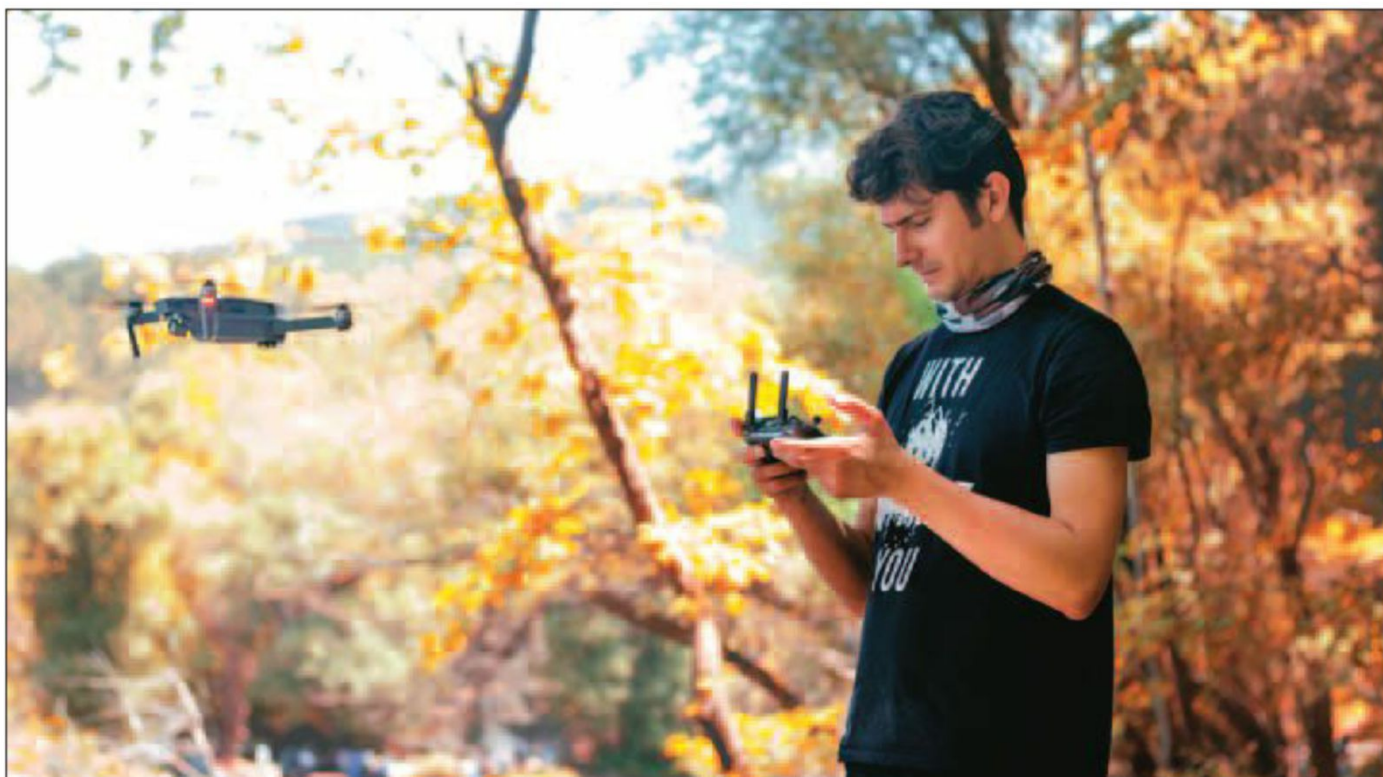
TEXT:MRINMOY CHOUDHURY

REFLECTION
AND PHOTOGRAPHY

What is Reflection Photography?

Reflection photography, also known as mirror photography is the use of reflective surfaces to create artistic images. This kind of photography changes the perspective to create beautiful and confusing images. Reflective surfaces can be anything from glass buildings to rivers, lakes, ponds or even a puddle after a rain. There are less traditional reflective surfaces as well like metal, mirrors or any shiny surface really. Let's see how we can create some stunning photographs with reflection.
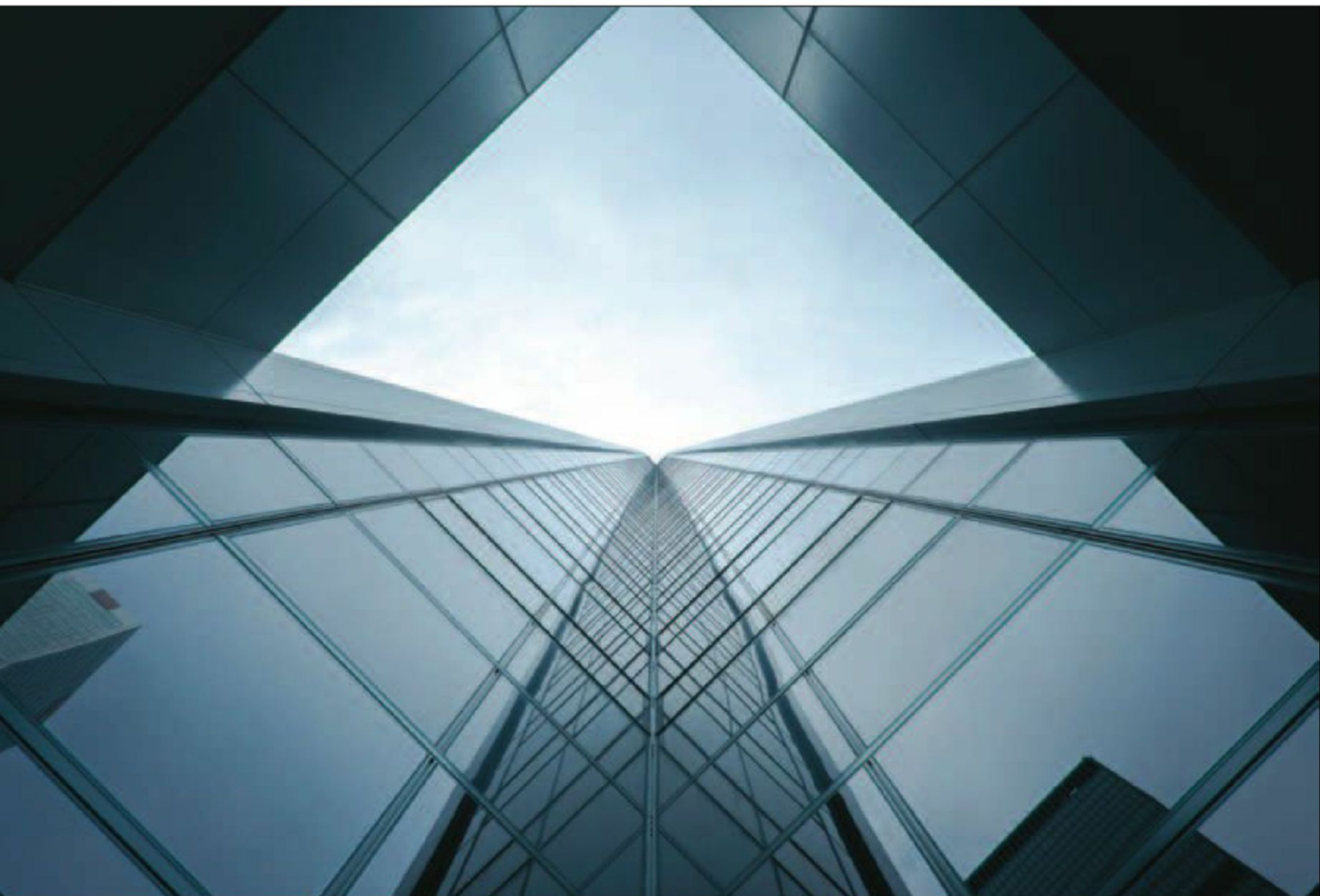
Scout out the right location

While water is the most commonly used reflective surface, you can scout for other locations as well. After a spell of rain, one can find reflection on the streets and if used well, can lead to lovely images. You can look for mirrors in road side hair salons, or glass windows on shops etc. Selecting the right location is key to a good photograph.

Selecting a subject

This is extremely important as well. Once you have located an area or a frame which might look interesting using reflection, choose a subject. The subject needs to be interesting as well. So that the viewer, even in the confusion might be able to concentrate on the subject itself. It can be anything living or non-living.
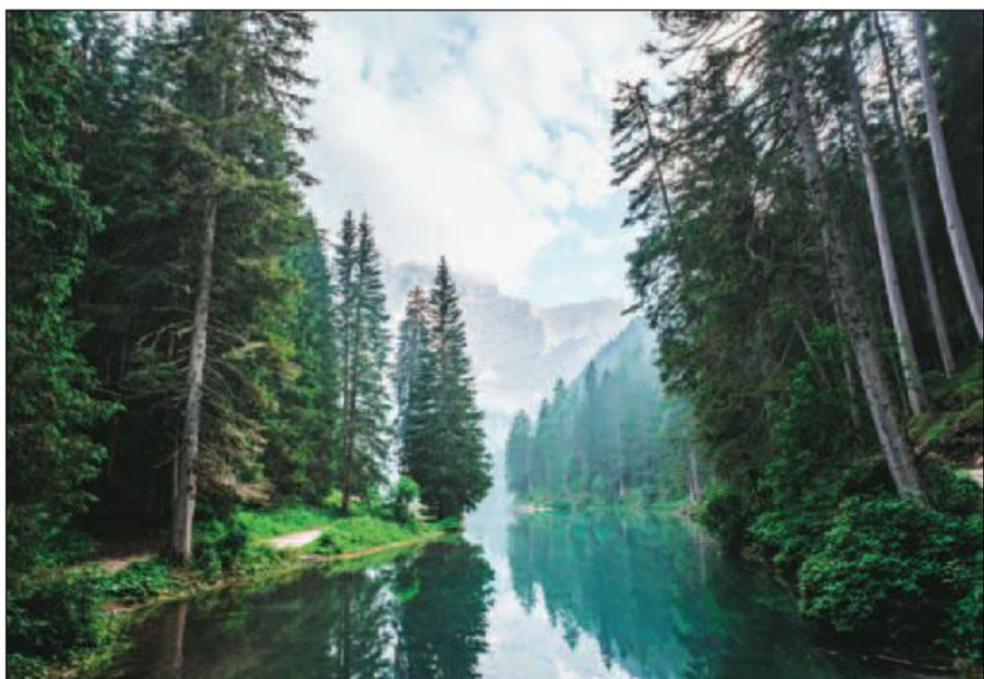
Equipment:

DSLR Camera
Wide Angle Lens (recommended but not necessary)
Tripod
Shutter Release Cable
Cell Phone

Use the right equipment

Using the right equipment is important for this kind of photography. While any camera with any lens can be used, a DSLR with a wide angle lens is the best. Wide angle lenses have a much broader focal range and thus brings everything in focus. A cell phone also works great for a quick snap on the go if you suddenly spot something great. If you are pre planning a shoot

Using different elements in a frame might also work out great. If it is a fashion shoot or a paid shoot, you can add props to your frame as and when you please. If you are shooting a documentary, sometimes adding people or animals as pros as they pass by can be great. Many reflection photographs are shot with a bird or aeroplane in it since it causes more confusion and makes the viewer spend more time looking at the photograph.

How to set your camera

Reflection photography might seem easy to do from afar, but it requires skills and technical knowhow to perfectly execute. There are different factors that affect reflection photography like how the wind is creating ripples in the water, or what shutter speed and aperture is to be used etc. One has to keep in mind that if the water is not steady and has ripples the image will be slightly blurry, which might pose a problem if you want to shoot sharp reflections but can on

in the evening, as many people do for monuments with large water bodies ahead of them, carry a tripod and a shutter release cable along for the perfect shot without any camera shake.

Some images require block lenses or prime lenses, but most of the time, wide lenses will suit your needs, especially when shooting monuments since the angle of view is also quite large.

Many photographers love to use the ripple or an object like a leaf or fish etc. to be in the reflection, creating an illusion of double exposure. Sometimes photographers shoot self-portraits with reflections and some photographers only keep inverted reflections as a frame instead of including the real surroundings.

Reflection photography is extremely situation driven and does not have rules as such. While one gets better at it as one practices, it is always a good idea to see what has already been done with it online, so that one can get a better understanding of the same. We hope this article gives you ideas and helps you understand reflection photography from a completely different perspective.

the other hand be used for your artistic gain.

On the aperture front, when shooting reflections, it is best to keep the aperture extremely small (f/14 or smaller) since one would ideally wish to have the entire frame in focus. Using aperture priority or manual settings is recommended. If light permits, use the lowest ISO settings to avoid grains.

Composition and Editing

When shooting a landscape or even portraits and so on, the rule of thirds are rarely used for reflections. The subject is the key focus and it might not always follow the rules of photography. In landscapes as well, the horizon is not always on the top half or the bottom half and sometimes is kept in the dead center.

Best cameras
from last year

Last year we witnessed a lot of camera launches and all of them came with very strong product credentials. All the camera manufacturing giants have introduced high end products with a plethora of features in the market and it has taken the whole photography scene new to a new level. But what it has also led to, is a confusion in the minds of the buyers and photographers regarding which camera to go for. So we have decided to address that confusion and come up with a list of cameras that stood out last year and is definitely worth considering. We have discussed the specifications and some key features of this camera so you can get a better idea of the given camer.

Nikon D850

PRICE
₹2,54,950

Specifications

- 45.7MP BSI CMOS sensor
- 7 fps continuous shooting with AE/AF (9 with battery grip and EN-EL18b battery)
- 153-point AF system linked to 180,000-pixel metering system
- UHD 4K video capture at up to 30p from full sensor width
- 1080 video at up to 120p, recorded as roughly 1/4 or 1/5th speed slow-mo
- 4:2:2 8-bit UHD uncompressed output while recording to card
- 1 XQD slot and 1 UHS II-compliant SD slot
- Battery life rated at 1840 shots
- 3.2" tilting touchscreen with 2.36M-dot (1024×768 pixel) LCD
- Illuminated controls
- 19.4MP DX crop (or 8.6MP at 30fps for up to 3 sec)
- Snap Bridge full-time Bluetooth LE connection system with Wi-Fi
- Advanced time-lapse options (including in-camera 4K video creation)

Nikon came with their new full-frame DSLR camera, the Nikon D850. It's a 45.7-megapixel full-frame DSLR camera with an FX-format, and back-side Illuminated (BSI) CMOS sensor. The D850 is capable of a capture rate of up to 7 frames-per-second (fps) or 9-fps with the optional battery grip and EN-EL18a/b battery, while offering a range of new features requested by Nikon shooters around the world.

The Nikon D850 is aimed as a serious tool for every kind of photographer, and the manufacturer says that it delivers intense clarity and accurate skin tones for portraits, with the added benefit of low-light ability for weddings and events. It is said to be versatile enough to be used for landscapes and fine art where broad dynamic range is critical, for sports that require a high frame rate and decisive AF, or for video creators who want 4K UHD flexibility.

The D850 is capable of shooting up to 7 fps at full resolution, with full AF/AE or 9 fps at full resolution with the addition of an optional battery grip (MB-D18) and EN-EL18a/b battery (Buffer approximately 51 frames of 14-bit lossless RAW capture / 170 frames of 12-bit lossless). The D850 offers a wide ISO range from 64-25,600 (Expandable down to ISO 32, up to 102,400). The D850 uses the Nikon D5's 153-point, Multi-Cam 20K AF system, which features 99 cross type sensors, 15 of which are sensitive to f/8. The camera has EXPEED 5, which Nikon informs is their most powerful engine yet, allowing for fast data readout and swift image processing, improved low light performance, high speed shooting, full-frame 4K UHD video capture and greater

power efficiency for longer battery life. The camera has a 3.2-in., high resolution (2359k-dot) touchscreen LCD monitor. The D850 offers the ability to operate with an electronic shutter in live view. When in this mode, users can shoot in complete silence. The electronic shutter operates at up to 6 fps (AF/AE locked) at full resolution, while an additional mode enables 8.6-megapixel capture in DX image area mode at up to 30 fps.

Like the D5 and D500, the D850 also supports Radio-controlled Advanced Wireless Lighting with the optional SB-5000 Speedlight and WR-A10 and WR-R10 accessories. Users can choose from 3 sizes of RAW files to enhance workflow, including Large (45.4-MP), Medium (25.6-MP) and Small (11.4-MP). Additionally, the D850 lets users batch process RAW files in camera. It gives users up to 1,840 shots at full resolution or approximately 70 minutes of video on a single charge. Users who opt for the additional control and handling benefits of the optional battery grip can expect up to 5140 shots (CIPA standard).

For macro, product and landscape photographers, there is a Focus Shift Photography feature. This feature lets the user automatically shoot up to 300 shots at adjustable focus step intervals to infinity which can be assembled into a focus-stacked image using third party software.

With the optional ES-2 Film Digitizing Adapter and compatible Micro-NIKKOR lens, the camera is said to enable super high-resolution digitising of 35mm slides or negatives and converts them in-camera to positives. The camera is said to have a rugged and weather-sealed magnesium alloy body.

It features built-in Wi-Fi & Bluetooth for connectivity. The D850 features dual memory card slots, XQD for high-speed capture and transfer, as well as readily available SD media.

Sony alpha A7R III

PRICE
₹2,64,990

Specifications

- 42MP Full-Frame Exmor R BSI CMOS Sensor
- BIONZ X Image Processor & Front-End LSI
- 399-Point AF System & 10 fps Shooting
- UHD 4K30p Video with HLG & S-Log3 Gammas
- 3.69m-Dot Tru-Finder OLED EVF
- 3.0" 1.44m-Dot Tilting Touchscreen LCD
- 5-Axis SteadyShot INSIDE Stabilization
- ISO 102400 & Pixel Shift Multi Shooting
- Built-In Wi-Fi/Bluetooth, Dual SD Slots
- USB 3.1 Gen 1 Type-C Port & PC Sync Port

The sensor of this camera is a 42.4-megapixel BSI CMOS sensor. The Sony Alpha A7R III comes with an updated BIONZ X image processor. This powers the camera to shoot with nearly twice the burst shooting speed, compared to its predecessor. The shots are taken at 10fps with full autofocus when using the mechanical shutter or the electronic shutter. This feature lets you capture up to 76 compressed RAW images or 28 uncompressed RAW images in the burst mode. The maximum ISO has been upgraded up from ISO 25600 to ISO 32000. Sony Alpha A7R III now offers focusing in low light up to -3 EV due to improved autofocus speeds.

The Sony A7R III has a 5-axis image stabilisation equipped in the body, hence providing you with a 5.5 step shutter speed advantage. Sony has put in a new software in this camera, called as the Imaging Edge. This is mostly for the pre-processing and post processing work. The Image Edge Software tool also facilitates the new Pixel Shift Multi Shooting, which is a new feature in A7R III. Pixel Shift Multi Shooting basically turns the sensor in 1-pixel increments in order to shoot four different pixel-shifted images. Now these four images can be stitched together and then edited, using the new Imaging Edge software suite.

Other specifications include a higher resolution OLED electronic viewfinder (EVF), dual SD card slots (for UHS-II and UHS-I cards) and USB Type-C (USB 3.1, Gen1) port. Sony has also added other improvements around the back of the camera which include a joystick for navigation and moving focus points, a 3-inch touchscreen for touch focus and an 'AF On' button. The A7R III has some strong video credentials as it can shoot a full 4K video, using the full resolution of the sensor. It also allows you to shoot in Super 35mm format, which shoots at a higher resolution and then strips the footage down to 2160x3840, which gives you a more dynamic range and colours.

This camera stores the HLG (Hybrid Log Gamma) metadata, this feature lets HLG compatible HDR displays display the footage without any need for post editing process. This camera can also shoot at 1080p 120fps.

Canon 5D Mark 4

Specifications

- New 30.4MP CMOS full-frame sensor with Dual Pixel AF
- DCI 4K 30/24p video using Motion JPEG + 4K Frame Grab
- 61-point AF system with 41 cross-type sensors (center point sensitive to -3 EV)
- Dual Pixel AF (sensitive to -4EV) for continuous Servo AF in stills (first for a full-frame Canon camera) and video
- ISO 100-32000 (expandable to 102400)
- 7 fps continuous shooting
- Dual Pixel Raw (image micro adjustment, bokeh shift, ghosting reduction)
- 150,000-pixel RGB+IR metering sensor
- 1.62M-dot 3.2" full-time touchscreen
- Wi-Fi w/ NFC + GPS

PRICE
₹2,54,995
(BODY ONLY)

The new model brings with it 4K video recording and Dual Pixel autofocus for much better video capabilities.

The camera is equipped with a 30.4-megapixel full-frame sensor along with the Canon's Digic 6+ image processor. Other specifications include ISO range of 100-32000, 7fps burst mode, video recording up to 4K at 30fps, Wi-Fi b/g/n, GPS, NFC, and USB 3.0. The camera comes with a 3.2-inch fixed touch-enabled LCD display with 1.6 million-dot resolution.

The new Dual Pixel autofocus system is a thing to look out for, which allows for a faster continuous autofocus in the video mode, also you can now simply tap the display in live mode to change focus while shooting stills due to the newly added phase detection autofocus.

Leica CL

PRICE
₹1,90,000

Specifications

- **Body type:** Rangefinder-style mirrorless
- **Max resolution:** 6014 x 4014
- **Effective pixels:** 24 megapixels
- **Sensor size:** APS-C (23.6 x 15.7 mm)
- **Sensor type:** CMOS
- **ISO:** Auto, 100-50000
- **Lens mount:** Leica L
- **Focal length mult:** 1.5×
- **Articulated LCD:** Fixed
- **Screen size:** 3
- **Screen dots:** 1,040,000
- **Max shutter speed:** 1/8000 sec
- **FormatMPEG:** 4, H.264
- **Storage types:** SD/SDHC/SDXC card (UHS-II supported)
- **Weight (inc. batteries):** 403g (0.89 lb / 14.22 oz)
- **Dimensions:** 131 x 78 x 45 mm (5.16 x 3.07 x 1.77)
- **GPS:** None

Leica came with this mirrorless camera with interchangeable lens, with a lot of innovative features like a large APS-C sensor, 4K video recording and burst shooting capability (up to 10fps).

The sensor for this mirrorless camera is a 24-megapixel APS-C CMOS sensor and is powered by Leica's Maestro II series image processor. The ISO range for Leica CL is of 100-50000, it also comes with features like RAW file support, 49 autofocus points, 10fps burst shooting and choice of manual and scene shooting modes. The CL has a touch screen display of 3 inch and a built-in electronic viewfinder with a 2.36 million dot resolution. You can also share pictures directly through your smartphone with the built in Wi-Fi module. You will need the app for it though. The SL lenses can be used without an adapter on the CL with the help of the L-Bayonet mount.

Fujifilm GFX 50s

The Fujifilm GFX 50S boasts an impressive 51.4-megapixel medium format sensor which can be changed to various aspect ratios. This sensor, which is manufactured by Fujifilm themself, measures around 43.8x32.9mm.

The Fujifilm GFX 50s is a medium format camera that has been targeted at a bunch of professionals who take pictures in several genres like products and fashion, portraiture and landscape. This type of use totally justifies the cameras as in these cases, image quality is at the top priority. Advertising and entertainment often need images that can be blown up to maximum sizes both for digital and printing. The 50 megapixel sensor takes care of all that necessary details in both shadows and highlights and delivers excellent image quality and performance. Since this is a medium format camera, the depth of field rendered by the sensor is also of very superior quality. We had a chance to test the camera out with two of its native lenses. One the Fuji GFX 32-63mm f/4 lens and another one being the Fuji GFX 63mm f/2.8 and surely we are impressed both by the camera performance and the lens output.

The GFX can attain a maximum ISO of 12800, but we all know the fact that medium format cameras have always been about the quality rather than just getting images. You can surely push the ISO up to 3200 and get almost noise free images, but most people using medium formats would not do that. Medium format photography needs a lot of light. The more the light, the better the control it can offer and a better dynamic range can be exploited. Medium format cameras are best suited to commercial and landscape photographers. For landscape photography, sharpness and details are very important.

Specifications

- 51.4MP 43.8 x 32.9mm CMOS Sensor
- X-Processor Pro Image Processor
- Removable 3.69m-Dot OLED EVF
- 3.2" 2.36m-Dot Tilting Touchscreen LCD
- 117-Point Contrast-Detection AF System
- Extended ISO 50-102400, 3 fps Shooting
- Full HD 1080p Video Recording at 30 fps
- Multi Aspect Ratio Shooting
- Film Simulation Modes
- Weather-Sealed Magnesium Alloy Body

PRICE
₹5,11,999
(BODY ONLY)

Canon M6

The Canon M series is a mirrorless series that Canon came with and this model is a mid-range level.

The specifications for this camera weighing 390 grams, include a 24MP APS-C size sensor, dual pixel CMOS auto focus, Digic 7 processor with full HD Video recording. The Canon M6 comes with an additional control dial and is packed with a 3-inch touchscreen (which you can flip up to 180 degrees). It has a five axis image stabilization support for the videos and comes with ISO 25,600 at 9Fps continuous shooting speed, giving you 49 focus points and Raw files support. Using this camera at ISO 1600 generally gives very good results. It also has a built-in flash, stereo microphones, mono speaker, SD card slot, micro HDMI output, an external microphone port and built-in support for Wi-Fi, Bluetooth and NFC.

PRICE
₹56,995
(INCLUDING EF-M15-45 IS STM KIT LENS)

Specifications

- **Body type:** Rangefinder-style mirrorless
- **Max resolution:** 6000 x 4000
- **Effective pixels:** 24 megapixels
- **Sensor size:** APS-C (22.3 x 14.9 mm)
- **Sensor type:** CMOS
- **ISO:** Auto, 100-25600
- **Lens mount:** Canon EF-M
- **Screen size:** 3
- **Screen dots:** 1,040,000
- **Max shutter speed:** 1/4000 sec
- **Format:** MPEG-4, H.264
- **Storage types:** SD/SDHC/SDXC card
- **USB:** USB 2.0 (480 Mbit/sec)
- **Weight:** 390 g (0.86 lb / 13.76 oz)
- **Dimensions:** 112 x 68 x 45 mm (4.41 x 2.68 x 1.77)

Nikon D3400

PRICE
₹29,990
(WITH AF-P
18-55MM LENS)

Specifications

- **Body type:** Compact SLR
- **Max resolution:** 6000 x 4000
- **Effective pixels:** 24 megapixels
- **Sensor size:** APS-C (23.5 x 15.6 mm)
- **Sensor type:** CMOS
- **ISO:** Auto, 100-25600
- **Lens mount:** Nikon F
- **Screen size:** 3
- **Screen dots:** 921,000
- **Max shutter speed:** 1/4000 sec
- **Format MPEG:** 4, H.264
- **Storage types:** SD/SDHC/SDXC
- **USB:** USB 2.0 (480 Mbit/sec)
- **Weight:** 445 g (0.98 lb / 15.70 oz)
- **Dimensions:** 124 x 98 x 76 mm (4.88 x 3.86 x 2.99)

The D3400 is a lighter version of its predecessor, 445 grams to be exact, and comes with the same plastic body and button layout like D3300. The command dial has an AE-L/AF-L toggle on its side working as exposure/ focus locking buttons. The camera has a 24.2-megapixel APS-C CMOS sensor and uses Nikon's Expeed 4 image processor which will give you a total of 11 focus points, RAW image support, and contrast detection autofocus. The D3400 comes with a standard Micro-USB connector and a Mini-HDMI port. The camera has a 921k-dot resolution packed in its 3-inch display, which is fairly bright, but might not work quite efficiently under sunlight.

Also there's a built-in pop-up flash along with a hotshoe in order to attach external flashes. ISO sensitivity ranges from 100 to 25,600 for this camera and comes with shutter speeds of 30 - 1/4000 second with 5fps burst speed.

Nikon D3400 shoots videos at 1080p at 60 fps. The D3400 also comes with a support for Snapbridge. Which is a software that lets you share your pictures from your camera to your phone/ computer.

Canon 1300

PRICE
₹29,995
INCLUDING EF-S
18-55 IS II KIT LENS

This Canon's entry-level DSLR is here to replace its predecessor, EOS 1200D. It's a fairly good purchase for someone who is looking to invest in a new DSLR. But the catch is that it doesn't come with a lot of upgrades from its predecessor and hence it wouldn't be really economical to shift from your 1200D to this model, unless you really want a good connectivity. The camera does have some new features and comes at a really affordable price and hence making it an object of desire.

This model comes with an 18-megapixel APS-C CMOS sensor, and has an ISO range of 100-6400, it is capable of 3fps burst shooting. The processor for this model has been upgraded to Canon's Digic 4+. The 1300D shoots in JPEG, RAW and in JPEG+RAW mode and records videos at 1920x1080p at 30fps. The sensor is packed with nine autofocus points and one cross-type point in the centre.

The resolution of this camera is 920k (double of 1200D) and is packed in a 3-inch TFT display. The body has a microphone at the top along with a pop-up flash and hotshoe for external flash. The body weighs at around 440g.

Specifications

- **Body type:** Compact SLR
- **Max resolution:** 5184 x 3456
- **Effective pixels:** 18 megapixels
- **Sensor size:** APS-C (22.3 x 14.9 mm)
- **Sensor type:** CMOS
- **ISO:** Auto, ISO 100-6400, expandable to 12800
- **Lens mount:** Canon EF/EF-S
- **Screen size:** 3
- **Screen dots:** 920,000
- **Max shutter speed:** 1/4000 sec
- **Format:** MPEG-4, H.264
- **Storage types:** SD/SDHC/SDXC card
- **USB:** USB 2.0 (480 Mbit/sec)
- **Weight:** 485 g (1.07 lb / 17.11 oz)
- **Dimensions:** 129 x 101 x 78 mm (5.08 x 3.98 x 3.07)

TEXT: ANIKET TIWARI

Best laptops for photo and video editing

While desktop computers are considered to be the best for photo and video editing, due to their flexibility in terms of customization, in today's world, portability has become an extremely important factor. Given that most photographers, video enthusiasts and editors travel a lot for their work, laptops have emerged as a clear choice for the tech nerds and travel geeks. Laptops have over the years moulded themselves accordingly and can match toe to toe with desktop computers when it comes to power, heat dissipation, specification and colour calibration of the monitors. In this article we will list the best available laptops for the consumers in the market. While most of these laptops come with different RAM, GPU, processor options, we have taken the best and the highest spec options into account.

Huawei MateBook X Pro

The newest addition from Huawei in their laptops is a high end 13.9 inch machine with a screen-to-body ratio of 91% and a viewing angle of 178 degrees. The laptop comes with two different processor options, namely the 8th Generation Intel Core i7-8550U processor or the 8th Generation Intel Core i5-8250U processor and has an NVIDIA GeForce MX150 with 2 GB GDDR5 / Intel UHD Graphics 620 GPU. The 3000 x 2000, 260 PPI screen produces perfect colours thus helping a photographer while editing. The 8 GB / 16 GB LPDDR3 2133 Mhz RAM options work well with most heavy softwares. However, the 256 GB / 512 GB NVMe PCIe SSD might not be enough for most but that issue can be easily handled with an external hard drive. The SSD enables fast file transfers thus saving time. The laptop also has many input and output options such as the 3.5-mm stereo headset jack, USB-C x 1 (Allow data transfer, charging and connection with MateDock 2) , Thunderbolt 3 (USB-C) port x 1 (Allows speedy data transfer, charging and connection to MateDock 2) and USB-A x 1 (USB3.0, max output 5 V / 2 A).

Dell XPS 13

This laptop is Dell's crown jewel and sports an 8th Generation Intel Core i7-8550U Processor with Windows 10 Home Plus pre installed. The 16GB LPDDR3 2133MHz RAM runs photo and video editing softwares quite well and the 512GB PCIe Solid State Drive matches your editing speed with its read/write speeds toe to toe. The 13.3-in screen has two different options with touch and non touch display. Priced at ₹1,43,990.00, it comes preloaded with Microsoft Office Home and Student 2016 DFO. The deal becomes even sweeter as it comes with 2x Thunderbolt 3 ports with Power Delivery & DisplayPort (4 lanes of PCI Express Gen 3), 1x USB-C 3.1 with Power Delivery & DisplayPort, 1x microSD card reader, 1x headset jack, 1x Noble lock slot and a Precision touchpad with seamless glass integrated buttons. The laptop also has a Windows Hello compliant fingerprint reader in the power button.

Apple Macbook Pro with Touch Bar 15-inch 2018

The pinnacle of Apple's laptop innovation, the macbook has been favoured by artists and regular users alike. While its latest iteration has amazing specs and runs smoothly, it has its drawbacks as well. The Touch Bar with integrated Touch ID sensor is their newest addition and like any Apple product, it looks as good as it works.The laptop comes in silver or space grey and sports a 15.4-inch (diagonal) LED-backlit display with IPS technology; 2880x1800 native resolution at 220 pixels per inch with support for millions of colours. Its retina display is a thing of envy for photographers and sports 500 nits brightness. The laptop also boasts True Tone technology and features a 2.6GHz 6-core Intel Core i7, Turbo Boost up to 4.3GHz, with 9MB shared L3 cache and a 512GB SSD.

With 16GB of 2400MHz DDR4 onboard memory and Radeon Pro 560X with 4GB of GDDR5 memory and automatic graphics switching and Intel UHD Graphics 630, this laptop is an absolute pleasure to work in. The drawbacks, as many power users have noted, is the lack of basic ports that any photo or video editor requires. The Macbook features four Thunderbolt 3 (USB-C) ports with support for Charging, DisplayPort, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps) but one needs a heap of dongles to get through their day.

MSI GS65 Stealth Thin 8RF

A powerful gaming laptop, the MSI GS65 Stealth sports the latest 8th Gen. Intel Core i7 processor with Windows 10 Home / Windows 10 Pro options and a powerful GeForce GTX 1070 8GB GDDR5 graphics card. The 15.6" Full HD (1920x1080), 144Hz 7ms, IPS-Level gaming display panel (Optional) is amazing to look at and work in. It also boasts of being the world's first 144Hz thin bezel gaming laptop. With the all new Dragon Center with exclusive gaming mode and Per-Key RGB gaming keyboard by Steelseries, it is apt for both gaming and running high end photo and video editing software. Its battery life of 8 plus hours makes it a great product to work on the go. A good video editting requires great sound and this laptop features sound by Dynaudio and is High-Resolution Audio ready. The 360° virtual surround sound powered by Nahimic 3 makes things better in the sound front. Being ultra thin at just 17.9mm and ultra light at 1.88kg, it is extremely portable as well. The buyer also gets a free premium license for 1 year and WTFast free premium license for 2 months.

Acer Predator Helios 300

The Acer Predator Helios 300 is another gaming oriented laptop that suits the needs of photo and video editors with its 8th Gen Intel Core i7 processor and overclockable NVIDIA GeForce GTX 1060 graphics. It sports the Windows 10 Home and has a 15.6" and 17" Full HD IPS display option.

Architecturally inspired exhaust vents are said to expel heat and ensure a cool CPU when using high end software or playing games. The custom-engineered dual-fan cooling with the all-metal AeroBlade 3D Fan makes it a great buy.

Asus ROG GX700

Asus has been developing gaming laptops for quite some time with its Republic of Gamers moniker and the Asus ROG GX700 is one of their bests yet. Sporting the Intel Core i7 6820HK Processor and Windows 10 Home or Windows 10 Pro options, this laptop boasts an Intel CM236 Express Chipset and up to 64 GB SDRAM. With WideView Technology and a panel with 72% NTSC (1920x1080) Anti-Glare (16:9) 60Hz screen and with 8GB GDDR5 VRAM GeForce GTX 980

PCIE Gen3X4 SSD 256GB/512GB RAID 0 support for this laptop will suit most photographers' needs. The Multi-format card reader (SD/MMC), 1 x RJ45 LAN Jack for LAN insert , 1 x HDMI , 2 x Type A USB3.0 (USB3.1 GEN1) , 3 x Type A USB3.0 (USB3.1 GEN1) , 1 x Thunderbolt port , 1 x Headphone-out jack , 1 x Microphone-in jack, 1 x SD card reader, 1 x mini Display Port and 1X AC adapter plug are the other things that come with it. The 1X AC adapter plug will ensure you never need another adapter!

Asus Zenbook Pro 15

Asus has been experimenting with laptops other than gaming oriented ones, for consumers who require high end specs but are not looking for bulky and chunky gaming laptops. The Zenbook Pro 15 serves that purpose just right. It sports the latest Intel Core i9-8950HK processor, which is better than most gaming laptops out there at the moment and has a 2.9GHz hexa-core with Turbo Boost (up to 4.5GHz) and 12MB cache. The NVIDIA GeForce GTX 1050 is an absolute beast and the 4GB GDDR5 VRAM is extremely useful. The beautiful 15.6" LED-backlit 4K UHD (3840 x 2160), 16:9 touchscreen with a colour calibration Delta E < 2, 100% Adobe RGB colour gamut and 7.3mm-thin bezel with 83% screen-to-body ratio is a beautiful, yet powerful device. It comes with two different RAM options - 8GB / 16GB 2400MHz DDR4 onboard and four different hard drive options- 1TB / 512GB PCIe SSD/ 512GB / 256GB SATA3 SSD. The ports included in this sleek laptop are 2 x Type-C USB 3.1 Gen 2 (Thunderbolt), 2 x Type-A USB 3.1 Gen 2, 1 x HDMI, 1 x Combo audio jack, 1 x MicroSD card reader. With up to 9 hours battery life and important softwares included such as ASUS Battery Health Charging, ASUS GIFTBOX, ASUS Sync, ASUS Splendid, ASUS Eye Care, ASUS Tru2life Video and ASUS AudioWizard, this laptop surely is a hit.

HP Omen

As HP claims "Engineered for full overclocking", this laptop is built for heavy software! The Intel Core i7-7820HK Processor (2.9 GHz base frequency, up to 3.9 GHz with Intel Turbo Boost Technology, 8 MB cache, 4 cores) with 1 TB 7200 rpm SATA works seamlessly when using it for high end editing softwares as well as games. The 17.3 screen is a thing of beauty and the 1 year limited warranty on parts and labour makes it completely headache free to work on this machine. The 32 GB DDR4-2800 SDRAM (2 x 16 GB) supporting Intel XMP and NVIDIA GeForce GTX 1080 (8 GB GDDR5X dedicated) are built for speed. Even though this laptop is not on the lighter side, weighing at 4.52 kg, it is still quite portable. According to HP, "Fitted with Intel quad-core processor, OMEN's first fully overclockable laptop is engineered with two powerful fans with four 3.5mm heat pipes to dissipate heat away so you can push your OMEN X Laptop beyond limit and achieve seamless gaming experience." The OMEN X laptop is also fitted with factory overclocked GPU for fast and smooth desktop-class graphics in mobile form factor. The 144 Hz refresh rate makes gaming on this laptop extremely comfortable as well!

TEXT: SOURADEEP ROY

MOST EXPENSIVE CAMERAS MONEY CAN BUY

Cameras are coveted properties and are often collected by antique collectors and photographers alike, but those cameras have an increased value because of its vintage nature. In this article, we will discuss cameras that are expensive right out of the box and can cost you an arm and a leg!

Move over Nikon and Canon, we are listing cameras that no ordinary human being can own. Let's find out which cameras you can buy if you had more money than anyone can dream of:

Leica S (Typ 007)

This medium format camera from premium manufacturer Leica, is an absolute beauty. With dimensions of 30 x 45 mm, the camera's sensor is 50% larger than that of a 35mm camera and can record professional video footage to Cine 4k standard, with the entire sensor width of 45 mm used for recording in full-HD resolution. The 3.0" 921.6k-Dot LCD Monitor looks gorgeous and the new Leica Maestro II Processor is a workhorse of its own accord. Priced at $19,995, one can buy a Jeep Compass instead.

Mamiya

The 80MP Leaf Credo Digital Back with a 53.7 x 40.3mm DALSA CCD Sensor is preferred by many professional photographers. The 3.2", 1.15MP Touch Screen LCD with a 170° viewing angle , Dual-Core Microprocessor, and Lossless 16-bit file compression, among others, make it a great buy. The image area is almost 3 times as large compared to a 35mm camera and its TTL phase difference detection method for autofocus works smooth as silk. But, with a hefty price range of $28,495.00, one can either choose to have this beauty or live for 82 days in JW Mariott, Mumbai in their most expensive Royal Lotus Suite, with executive lounge access and beach view.

Hasselblad H6D 400C

With a 100MP 53.4 x 40.0mm CMOS Sensor, Multi-Shot Capture and 4- or 6-Shot Modes, this camera is an absolute delight to use. The ISO 64-12800 and 15-Stop Dynamic Range is perfect for studio, advertising and editorial photography and the 16-Bit Color Depth with 3FR Raw File Format helps too! The 3.0" 920k-Dot Touchscreen LCD Monitor is great for a quick look at the results of the shoot. The Hasselblad Natural Color Solution is an added bonus for fashion and editorial photographers as well! With a price tag of $47,995.00 it is equivalent to 5583 cocktails at Aer in Four seasons hotel in Mumbai!

Phase One XF 100MP Camera System

With a 16 bit analogue feel and 15 stop dynamic range this full frame medium format camera is a thing of beauty indeed. The 50 - 12800 ISO range and 60-minute exposures are excellent too. The Electronic Shutter works extremely well and comes with the new rolling shutter technology of the IQ3 100MP. Phase One and Sony have been development partners for years and the 50MP sensor found in the XF IQ3 50MP is a joint development of the two companies. Bound to be expensive, it stands at a whopping $48,990 and is equivalent to six Harley Davidson Street 750 motorcycles.

Seitz 6×17 Panoramic Camera

Getting to the weird and quirky cameras, the Seitz 6×17 is sure to grab a few eyeballs! Launched around 2007, this camera was developed to take panoramic pictures – something that our phone does with ease these days. Scan times were long and you couldn't hand-hold this camera. It comes with a hefty price tag of 36'000 Swiss Francs, which in today's value would have bought you 34 Iphone X models which can shoot 4K videos and panoramas as well!

Diamond Canon IXUS

Released in 2006, Canon's celebratory IXUS cameras exemplify unnecessary luxury by sporting 380 diamonds as the company turned 10 years old. Canon auctioned up a diamond-crusted IXUS, 65 per year of the brand's success, and all proceeds were channeled to the Red Cross. The camera fetched approximately €40,000!

TEXT: SOURADEEP ROY

Upcoming tech innovations to look out for

The world is changing and it is changing rapidly. A decade or two ago, no one could have fathomed that we would have access to such technology in future. And now, when inventors are turning into successful business personalities, we can only imagine how tech and science is going to expand in the future as there will be good investment and also a great market for new tech. Therefore, we have made a list of few upcoming tech innovations that might become big in the scene in future.
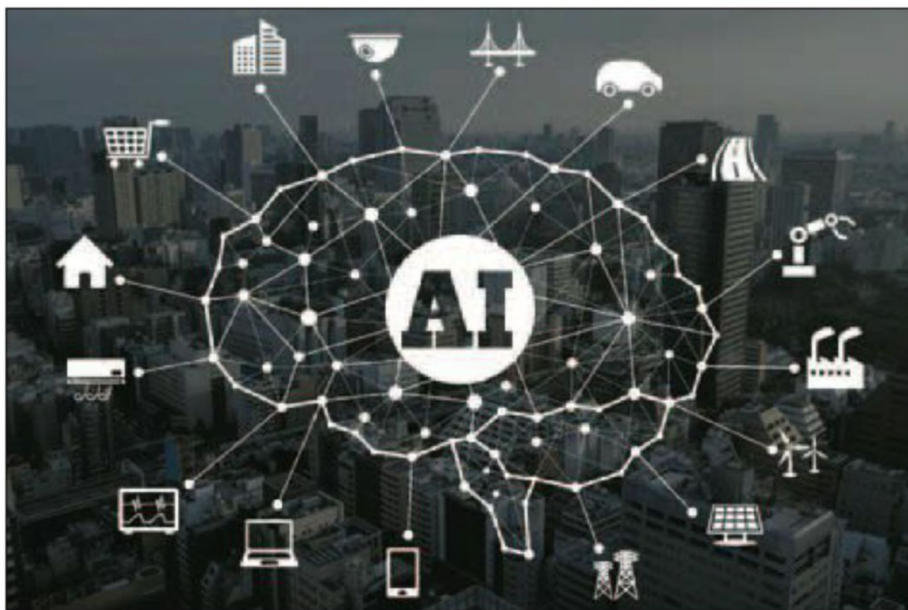
Artificial Intelligence

The future is AI. The way AI is changing every industry, it would have been a shame if the photography industry didn't get affected by this technology. In the future, the focus will be on AI and not on sensor or megapixels. Maybe even the way we record light in the cameras right now can change in future due to AI.

AI is pretty prominent in the smartphone world and it is being used extensively for photography as well. Apple introduced A11 Bionic neural engine chip that powers their current generation of iPhones. Pixel 2 featured dedicated image enhancement chip to help with image processing on the fly. Huawei P20 Pro is packed with AI features, such as real-time image scene recognition etc.

Leap Motion

After the advent of touch screens for PCs, people started to find more ways to interact with computers. The concept of leap motion is all about interacting with your computer in a more revolutionised way. To put it in a nutshell, Leap Motion can be more accurate than your mouse, keyboards and it would give a way better feel than touchscreen. It's almost like controlling your own AI through hand gestures and movements.

Previously Multi-touch desktops were launched which turned out to be a huge disappointment as it was confusing and your hands got tired due to excessive use. But what Leap Motion wants to do is to let you control the desktop with fingers, but without actually physically contacting the screen. It allows you to scroll the web page, zoom images, and play single shooter games with hand gestures only.

Pocket Printers

The future of printers will see an advancement towards mobility and speed. It's not exactly a great time for conventional printers and the industry needs changing. The emergence of pocket printers might give it a boost as it has the potential to tap into the minds of youngsters or professionals who are always on the move. This technology
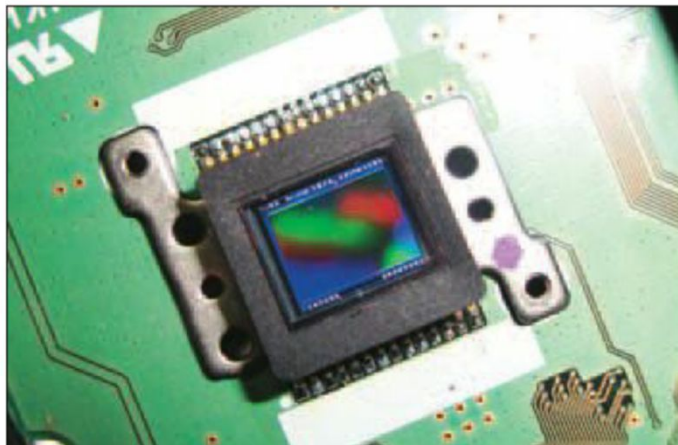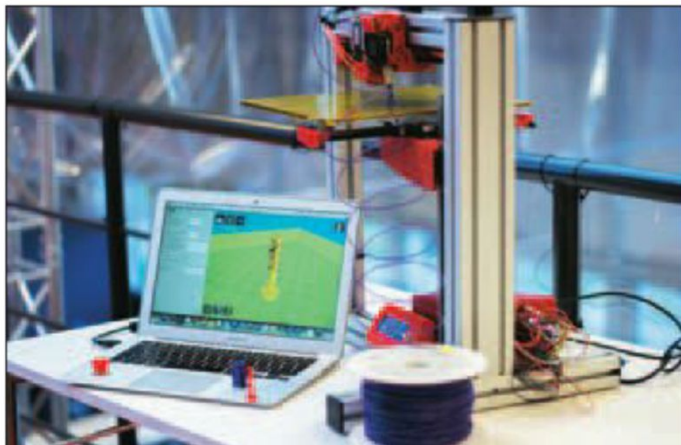
will make printers more approachable as the printing industry is shrinking. And while you can't exactly expect a lot of proficiency in terms of printing quality, you can surely be happy about the size. But for the next year we can expect better upgrades and innovations in this segment. Right now there are a fair number of options to select from in terms of pocket printers.

HP Sprocket - This handy and compact printer give you 5 x 7.6 cm photographs and a free HP Sprocket app to customise your pictures with things like borders and emojis.

Polaroid Zip Instant Print Mobile Printer – This printer has the capability of printing straight from your smartphone or tablet through their Bluetooth and NFC technology from anywhere. And for this printers no ink required, it can produce a high-quality image on a Zink photo paper with great colour quality.

Fujifilm Instax SP-1 – This pocket printer comes with multiple options for templates and filters, it utilises Instax Mini instant colour film and includes 20 shots. This one is also compatible with your smartphones and you can print your Snapchat or Instagram stories on the go.

Bigger Image sensors

There's a fad that has been created by some camera manufacturing companies. They believe in the concept of more megapixels equal to better image. This fad caught on and millions of cameras were sold due to this. But later people and mostly professionals realised that a high megapixel camera produces dodgy images too.

So people shifted towards big sensors and the company that is the front runner and quite prominent on this approach is obviously Fujifilm. They believe in

better sensors than bigger pixels. The idea behind that is to determine how much light is being used to create an image. Image sensors actually consist of millions of light-sensitive spots called as photosites which records information of things that we see through the lens. Therefore the logic that bigger sensors can gain more light information than a smaller one actually stands true.

3D Printing

Currently 3D printing has been employed in a lot of fields, varying from aviation to healthcare. And also 3D printing is used to commercially manufacture cameras. From lenses to body parts of the camera, everything has been experimented with, and hence the whole photography word is excited to see how this technology is going to drive the art form.

3D printing is now being tinkered with to a level where artists, mostly photographer are printing their own cameras. They are not only printing the mechanical parts, but also the lens along with other complex instruments. This technology has enabled photographers to envision a camera with specifications that are according to their needs and desires. This also means that if people can print their own cameras, then the pricing of the cameras might just come down. We have found a few people around the world who have delved deep into this and have already developed fully functional cameras. We have also covered this technology in detail in this edition of our magazine.

TEXT:ANIKET TIWARI

THE FUTURE
WILL PRINT IN 3D

3D printer is a revolutionized concept that has the potential to change the world one print at a time. The way this technology is bending and re-writing the rules right now, one can only wonder how this technology will transform in the future. Contrary to the popular belief that 3D printers are relatively new concept, 3D printing tech is being developed and explored since the 1980s. Dr Kodama was the first to describe a layer by layer approach for manufacturing through his development of a rapid prototyping technique in 1980. Infact, the main technologies that 3D printer, run on today were patented way back in the 90s. But due to some patent issues the growth for 3D technology has been a bit stunted until now. Now some previous licenses and patents have expired and a free pathway for 3D has been created.

Currently, 3D printing has been employed in a lot of fields, varying from aviation to healthcare. And also 3D printing is also used to commercially manufacture cameras. From lenses to body parts of the camera, everything has been experimented with, and hence the whole photography word is excited to see how this technology is going to drive the art form.

3D Printing Cameras and Camera parts (Even the lenses!)

3D printing is now being tinkered with to a level where artists, mostly photographers are printing their own cameras. They are not only printing the mechanical parts but also the lens along with other complex instruments. This technology has enabled photographers to envision a camera with specifications that are according to their needs and desires. This also means that if people can print their own cameras, then the pricing of the cameras might just come down. We have found a few people around the world who have delved deep into this and have already developed fully functional cameras.

1. Photographer Drew Nikonowicz recently concluded a successful Kickstarter campaign in which he raised well over twice his funding goal for the Standard Camera, a 4×5 3D printed view camera that you can build yourself. Kickstarter is an American public-benefit corporation based in Brooklyn, New York, that maintains a global crowdfunding platform focussed on creativity and merchandising. So their campaign supports creators with aids and gives it a global platform.

Nikonowicz has been working on his Standard 4x5 for several years now. According to him it was designed with new photographers in mind, especially students and educators. The camera is affordable, lightweight, and durable, and it comes without sacrificing the rigidity and movements that you mostly would expect from a large format camera. Since it is so durable, you can focus on being a photographer, not on protecting fragile and expensive gear. And because the design is modular and 3D printed, it's incredibly fast and easy to upgrade and repair.

2. Cameradactyl, is another 3D printed 4×5 camera that has been created by Evan Moses. For priced at around $225, you can get a camera with custom colours. Moses has also raised almost over twice his funding goal and still had two weeks left in the campaign. The camera's design is very funky and vibrant which is almost impossible to find in the normal cameras that are out there in the market.

Coming to lenses, 3D printing is also being used to develop much more advanced lenses. Now a camera can be completely 3D printed. This has been made possible by the use of

Stereolithography, with which you can manufacture perfectly clear camera lens. For the production of lens, clear resin is used and it has been developed with great optical properties. Now 3D printed lenses will not be a mere object of appreciation but it can be use used

thoroughly in the field.

Apart from this 3D printing is being extensively used in other industries too. It has been cutting down the work and have been facilitating the respective industry with cheaper alternatives. We have broadly covered a few industries where 3D printed products are being used and have been a success.

Aviation

3D printing has delivered a lot of opportunities in the aviation and manufacturing industries, with many big names using the technology to their advantage. The technology has found a niche in aircraft manufacturing - for example, Finnair has used 3D printing for small-batch manufacturing in its Airbus A320 aircraft. When an airline updates its aircraft cabin layout, gaps are often created between the existing and new components. Such gaps need to be bridged before the aircraft can

take on passengers, and time always is of the essence in returning a jetliner to revenue-generating service.

The traditional method of manufacturing a new plastic part involves creating custom-made injection moulding tooling – a process that is relatively complex, especially given the specialised nature of many components and the limited number needed for a typical cabin retrofit. By using 3D printing technology, Airbus has enabled small-batch manufacturing that is not only quicker than conventional moulding techniques but less expensive too.

Healthcare

Healthcare is also being transformed with 3D printing, including in the NHS. In 2017, the NHS began trailing 3D printed bionic hands for children in partnership with a Bristol-based start-up, Open Bionics. The use of 3D printing for prosthetics means more lightweight

designs as well as lowering costs from what is normally priced at up to £60,000 down to £5,000 using a 3D printer.3D printing has also been used as a way to help surgeons when planning to carry out a transplant as a 3D model can be used in the pre-planning phase of complex surgery. Guy's and St Thomas' NHS Foundation Trust were the first to carry this out using Stratasys multi-material 3D printing technology.

Automobile

In the automotive industry, 3D printing has been deployed to revolutionise the creation of vehicles. The first example is 'Strati', an electric car developed by Local Motors which is described as the 'world's first 3D-printed electric car'. The Local Motors have uploaded the design on their website and you can just literally print it out, if you have a printer that big. Otherwise they have also shared a layout for a miniature version, which you can print and keep at your desk.

Fashion

The fashion industry has also revolutionised the manufacturing of 3D printed clothing and footwear. According to a Reuter's news report, in April 2017, global footwear manufacturer Adidas launched a new trainer with a 3D printed sole. It partnered with Silicon Valley start-up Carbon to help with the mass production of 3D-printed soles. Adidas rivals Nike and New Balance have also begun experimenting with 3D printing but have only developed prototypes using the technique. Using 3D printing in fashion means more customised products. This means that the industry can be more personalised and 3D printing will cut down heavily on production costs.

TEXT: ANIKET TIWARI

Adobe AI

Recently a morphed image of our President Pranab Mukherjee wearing a black RSS cap and giving an RSS-style salute has gone viral on social media platforms. This led to allegations and counter-allegations battle between the Hindutva body and Congress. This is among one of the many incidences that have taken place in India and has led to chaos and a sentiment of mistrust in the society.

The state of journalism in India is going through a tough time. The advent of "fake news" has contributed towards a confused and volatile atmosphere. Fake photoshopped images are being peddled with violence inciting content and surprisingly it has found itself a sizable audience. Adobe's Photoshop, which was originally developed to enable photographers and designers to tweak their graphics and make it industry ready, is now being used as a trolling tool and for pushing fake images.

To battle this, Adobe, certainly aware of how its software's role in the creation of fake news images, is working on artificial intelligence that can spot the markers of fake photos. To be clearer, Adobe is tapping into machine learning to find out if someone has Photoshopped an image.

The usage of Artificial Intelligence (AI) to find fake images is a way for Adobe to increase trust and authenticity in digital media, according to the company. The AI has been coded extensively to find out which images have been photoshopped. This can bring a huge change in the Indian media as it will be difficult to push propaganda now. This may shift the power from content creator to the consumer of that content.

The Adobe team, along with the researchers of University of Maryland, fed the AI tens of thousands of fake images to teach it what to look for. The team trained the AI to figure out the type of manipulation used on the image and to identify the area of a photo that has been tweaked or hanged. The AI can do

this in seconds, Adobe says.

So how does this tool work?

Whenever someone tweaks an image, they always leave behind indicators that the photo is modified (Unless they are top level professionals). Metadata and watermarks can help determine a source image, and forensics can probe factors like lighting, noise distribution and edges on the pixel level to find inconsistencies. If a colour is slightly off, for instance, forensic tools can flag it. But Adobe wagers that it could employ AI to find tell-tale signs of manipulation faster and more reliably.

The AI looks for three types of manipulation: cloning, splicing and removal. Cloning (or copy-move) is when objects are copied or moved within an image, such as parts of a crowd duplicated to make it seem like there are more people in a frame. Splicing is where someone pastes together aspects of two different images, Removal is when an element (which could be crucial) of the image is removed or concealed and then presented to the audience.

The AI looks for changes to the red, green and blue colour values of pixels in the image. It also examines noise, the random variations of colour and brightness caused by a camera's sensor or software manipulations. Those noise patterns are often unique to cameras or photos, so the AI can pick up on inconsistencies, especially in spliced images. These are a few techniques that

the AI implements to flag fake content.

Adobe says these techniques are not perfect yet, though they "provide more possibility and more options for managing the impact of digital manipulation, and they potentially answer questions of authenticity more effectively.

Well, it is going to take time for this AI to establish itself in the market and surely a lot of new changes and modifications have to be made for it to become accessible to the audience. But, it is a positive step taken by Adobe to combat this influx of fake content and this can work as a strong antidote against people who share and create such content.

Aniket Tiwari

PRICE
₹1,64,990
(Body Only)

Sony A7 III

Over the years, Sony's A7-series have picked up great speed in terms of technology and demand. This has been made possible by introducing new technologies, making better designs, and also a very good lens line-up.

For those who are looking for a general-purpose, versatile and affordable full-frame camera other than a DSLR, the A7 III looks very appealing when compared to the current DSLR competition. It incorporates many of the niceties of the A7R III and A9. Do not mistake it to be a basic model that Sony calls it. It is a very capable camera indeed.

Look, Body and Feel

Like the original A7 and A7 II, the A7 III is equipped with a 24.2-megapixel full-frame sensor. The difference is that it's an entirely new sensor that has a backside-illuminated architecture. This allows a large amount of highlight and shadow information to be recorded into the camera's 14-bit Raw files. The maximum ISO sensitivity now extends to ISO 204,800, like the Sony A9. At the low end, the A7 III can shoot at ISO 100, with ISO 50, ISO 64 and ISO 80 also being available from the extended settings.

The A7 III has an improved buffer, which allows as many as 177 JPEGs, 89 compressed Raw files or 40 uncompressed Raw files to be taken in a burst which says that the A7 III is certainly no slouch when it comes to speed. Having a fully-electronic shutter, it's possible to shoot silently when you want to avoid disturbing a subject or get any unwanted attention.

Another welcome feature of the A7 III is its in-body 5-axis stabilisation. The A7 III offers up to 5 stops of stabilisation compared to 4.5 stops on the A7 II.

The autofocus is newer and has an

Sample Image

arrangement of 693 phase-detection points and 425 contrast-detection points. These points cover 93% of the frame. Autofocus is further improved by employing the same AF advancements as used in the Sony A9. The EVF

benefits from several coatings which makes viewing even more easier and pleasing to the eye.

The A7 III records 4K video internally, using 6K full pixel readout for super-high-quality footage. The camera also

supports Hybrid Log Gamma for 4K HDR output, like the A7R III before it, along with S-Log2 and S-Log3 gamma modes to retain as much dynamic range as possible for colour grading during post-production. There's also a wide array of

Specifications:

- 24.2 MP full-frame BSI CMOS sensor
- ISO 100-204,800 (extended)
- 10fps shooting
- Tilting rear touchscreen
- 5-axis in-body stabilisation
- 4K video recording

Sample Image
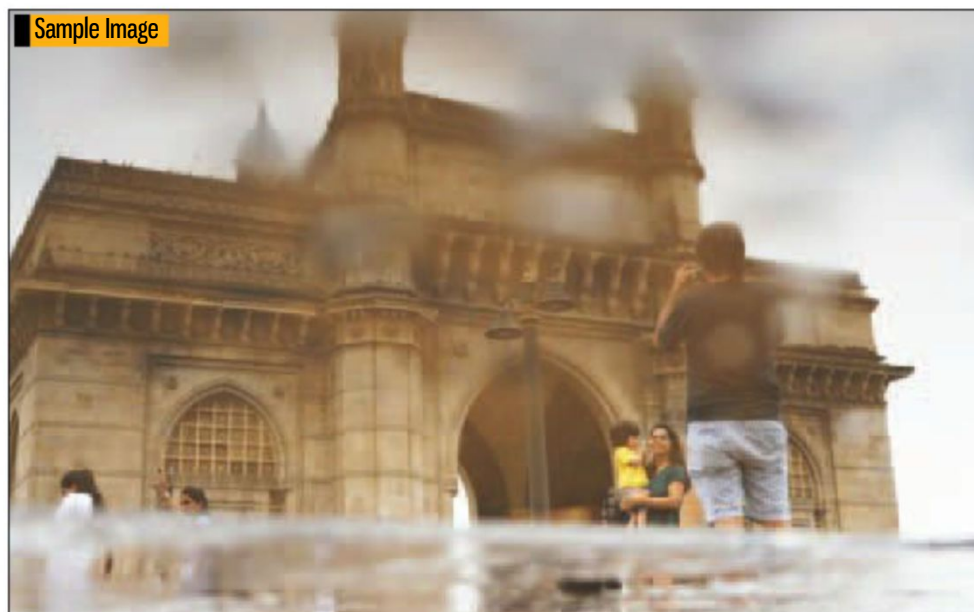
ISO Performance

ISO 100

ISO 400

ISO 1600

ISO 3200

ISO 6400

ISO 12800

functions to satisfy the workflows of professional videographers, including clean HDMI output, zebra function, simultaneous movie recording, extraction and separate storage of a still from a movie, and Gamma Display Assist function etc.

Microphone and headphone jacks are built in and these can be found behind separate plastic covers at the side of the camera's body.

The A7 III rounds off its impressive feature set with the Wi-Fi and NFC connectivity. With the Sony Play Memories app, you can easily connect, shoot and share you images on any platform.

The design of the A7 III is in line with the Sony A7R III and A9. It now also features a newer, larger battery and a bigger handgrip to make holding it easier. All buttons and dials are sealed, and this sealing extends throughout the body to prevent dust and moisture creeping in. Sony does say it isn't guaranteed to be 100% dust and moisture-proof; however, a light drizzle or a little moisture will not keep it from working.

By moving the record button it has freed up space for a larger memory card slot door. There are dual memory card slots, one of which is compatible with the faster UHS-II standard. The two loaded cards can be configured as you like; you can backup files to each card simultaneously, record different file types to the two card slots, or tell the camera to switch across to the second card after the first card fills up.

The focus-point joystick that we welcomed on the A7R III and A9 also replaces the old AF/MF switch and AEL button. This transforms the operation of shifting the focus point around the frame for the better, making the camera feel far more intuitive. The display screen can be flipped out and it is easy to use. The design, layout and handling has come a long way from where the A7-series began.

Image quality and ISO performance

There's no denying the fact that the A7 III offers sensational spec for the price, and the more you use, the more you realise how much the camera is capable of. The AF derived

Sample Image
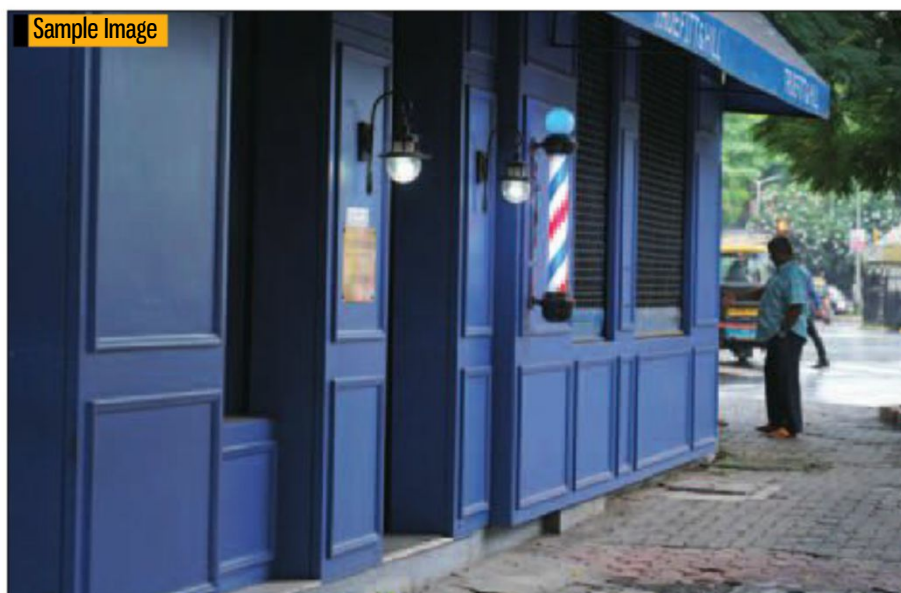
from the A9 is fast and takes no time to focus on subjects, be it still or moving.

Sony's Eye AF mode is highly effective for portraiture and detects eyes in the frame to ensure the point of focus. The sound of the mechanical shutter is quite loud and so to be more discreet in your approach you can switch to silent shooting mode. Sony however still needs to work to cut out and simpliyfy the menus and may be allow menu toggling and settings through a better touchscreen LCD on the back.

Detail remains well preserved when you push higher sensitivity settings, with usable files up to ISO 6400, unless you crib about any kind of grain or noise. As expected, the level of detail beyond ISO 6400 does start to reduce as the noise becomes more prominent. Users can push up to ISO 12,800 or ISO 25,600 and achieve very acceptable results.

Colour remains true and punchy between ISO 50 and ISO 6400. Increased noise and loss of detail is obvious after ISO 6400. The images turned out to be sharp and detailed with very nice colours and improved skin tones. Overall it is a very capable performer, even when it is the entry level full-frame camera for the Sony full-frame mirrorless series.

Conclusion

The Sony A7 III is definitely a big upgrade in terms of a new sensor, new AF system and a new, bigger and better battery with a higher capacity. The video department is capable enough to suffice the film-makers giving them host of options to make professional quality videos. The image department is also a winner giving quality results and improved colour and sharpness. That being said, the Sony A7 III is one camera you should be definitely looking at.

Image quality and Performance
⇨ Great images, ISO and great for video.
★★★★☆

Look Body and Feel rating
⇨ Ergonomic body design, easy to use and has a better grip
★★★★☆

Overall rating
⇨ New sensor, bigger battery and an overall performer
★★★★☆

TEXT AND IMAGES: MRINMOY CHOUDHURY

PRICE
₹8,999

WD My Passport SSD 256 GB

Solid State Devices or SSDs have been the talk of the town in the storage industry for a while now. Speed, reliability and its composition of solid parts with a dearth of moving parts to slow it down are the features that set it apart from its counterparts in the industry. Its smaller size and ease to carry around have also augmented its popularity in the recent times. However, SSDs are still not made affordable from a consumer's perspective, as it is found to be expensive for day to day usage. This is because they are highly expensive to manufacture and is priced above normal external and internal hard disk drives. The manufacturers have been constantly trying to make cheaper and more affordable SSDs for the masses and increase the consumption in the solid state storage device segment.

Specifications:

Capacity:
2TB, 1TB, 512GB, 256GB

Interfaces:
USB 3.1 (USB 3.0/2.0 compatible)

Limited Warranty:
3 years

Package Includes:
Portable SSD Drive
USB Type-C to Type-C cable
(supports USB 3.1 Gen-2)
USB Type-C to Type-A adapter
WD Discovery software for WD Backup, WD Security and WD Drive Utilities
Quick install guide

The WD My Passport SSD 256 Gb

No bigger than the size of a credit card and not more thicker than a bar of chocolate, the WD My Passport fits snugly into one's palms, with its light weight enhancing the comfort. It has a sleek black and silver exterior, with the silver part of the design having embedded patterns, while the black one remains sleek and smooth. The small size of the SSD is also beneficial to those who like to carry around their work or backup on the go. The minuscule size of the WD will also enable you to carry it around in your pocket, and to carry other equipment along with you without it completely over-weighing you. The WD My passport SSD comes in both 256Gb/512Gb/1Tb and 2 Tb trims, and you can choose according to your space requirements. It also come with a portable SSD Drive, USB Type-C to Type-C cable (supports USB 3.1 Gen-2), USB Type-C to Type-A adapter, WD Discovery™ software for WD Backup™, WD Security™ and WD Drive Utilities™ and a quick installation guide.

The Benchmark tests

The SSD was put to test on various grounds. The Crystal Disk Mark (version 3.0.1) test is used to verify the read and write speeds of the SSD. The folder transfer test was the other test which the SSD was put through. Each test is to put forward the logistics of read and write speeds, performance and the price value.

Crystal Disk Mark 3.0.1

In the Crystal Disk Mark test, the SSD was put to test for its read and write speeds. It clocked a read speed of 36.91 MB/S and a write speed of 27.49 MB/s.

Folder Transfer Test

In this test, we created a 2 GB folder with files containing videos, documents and images. The main priority of this test was to record the time required to transfer the folder from the SSD to the computer and from the computer to the SSD. The transfer of files from the SSD to the computer was taken as write speed and from the computer to the SSD was noted as read speed. We timed the copying to the SSD and copying from the SSD to the computer to get an idea of its actual read/write speed. The WD My Passport SSD 256 Gb took 1 minute 40 seconds to copy the files from the computer to the SSD and 1 minute 5 seconds to copy from the SSD to the computer. In case you connect the SSD to high speed USB ports, you can expect both the read and write speeds to be faster.

Conclusion

To encapsulate, WD My Passport 256 GB SSD is a very small and compact device, with additional benefits of ease to carry around and speedy back up options. However, when it comes to price and capacity, it is expensive for most consumers who would like to have more storage, as it is priced at ₹8999. All in all, this SSD is built to perform and doesn't fall short of performance.

TEXT:NANDANA JAMES

PHOTO SCAPE

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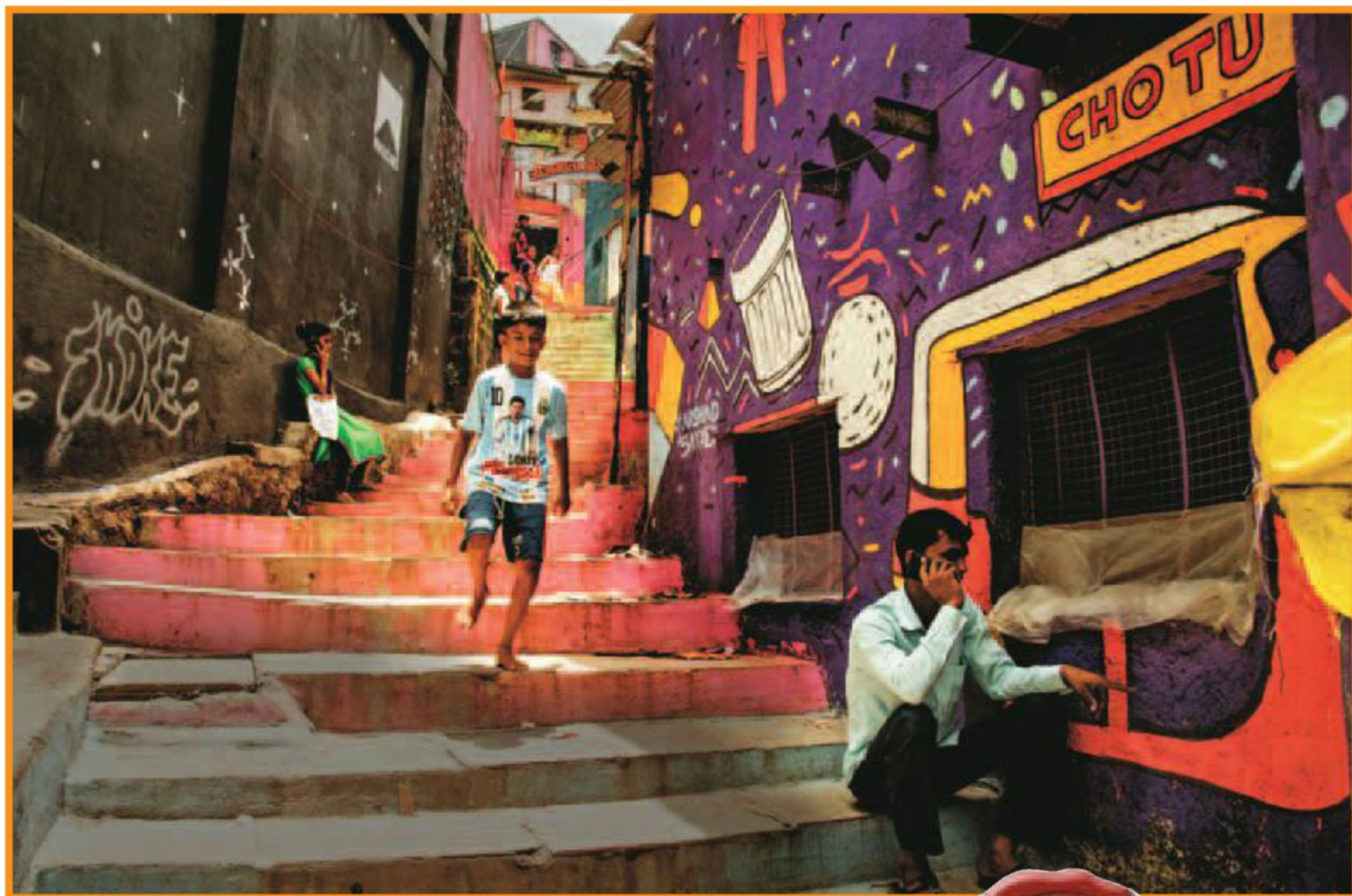
Name: Subhadip Biswas
Camera: Nikon D5100
Aperture: f/8
Shutter speed: 1/200 second
ISO: 200
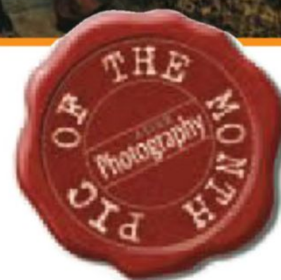
Name: Arghya Ganguly
Camera: Nikon D5300
Aperture: F6.3
Shutter speed: 1/ 25 second
ISO: 640

Name: Bivash Roy
Camera: NA
Aperture: NA
Shutter speed: NA
ISO: NA

Name: Chandrashekhar Shirur
Camera: NA
Aperture: NA
Shutter speed: NA
ISO: NA

Name: Gaurav Gupta
Camera: NA
Aperture: NA
Shutter speed: NA
ISO: NA
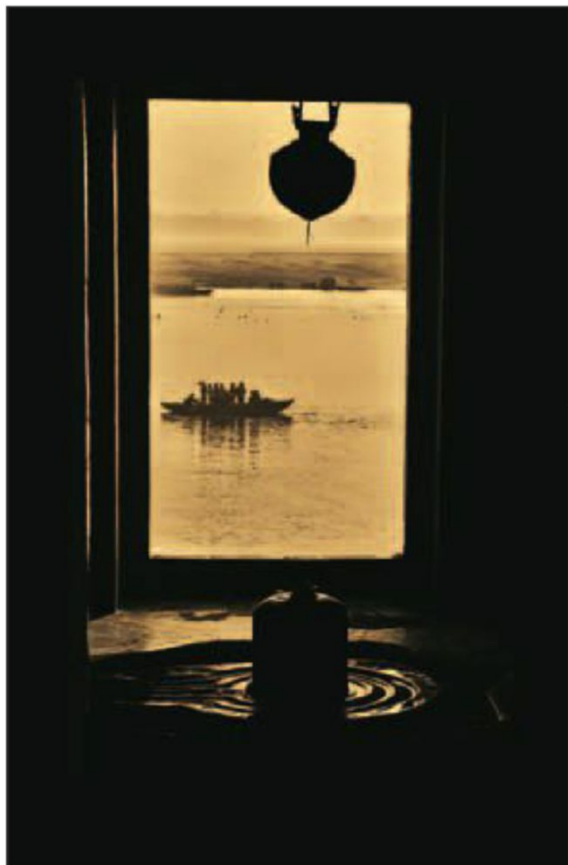
Name: Anirudh Dhannayak
Camera: Canon EOS 7D Mark II
Aperture: F/10
Shutter speed: 1/500 second
ISO: 200

Name: Indrajit Debnath
Camera: Nikon D7000
Aperture: f/4
Shutter speed: 1/25 second
ISO: 2000

Name: Massimiliano Coniglio
Camera: NA
Aperture: NA
Shutter speed: NA
ISO: NA

Name: SaNthu
Camera: NA
Aperture: NA
Shutter speed: NA
ISO: NA
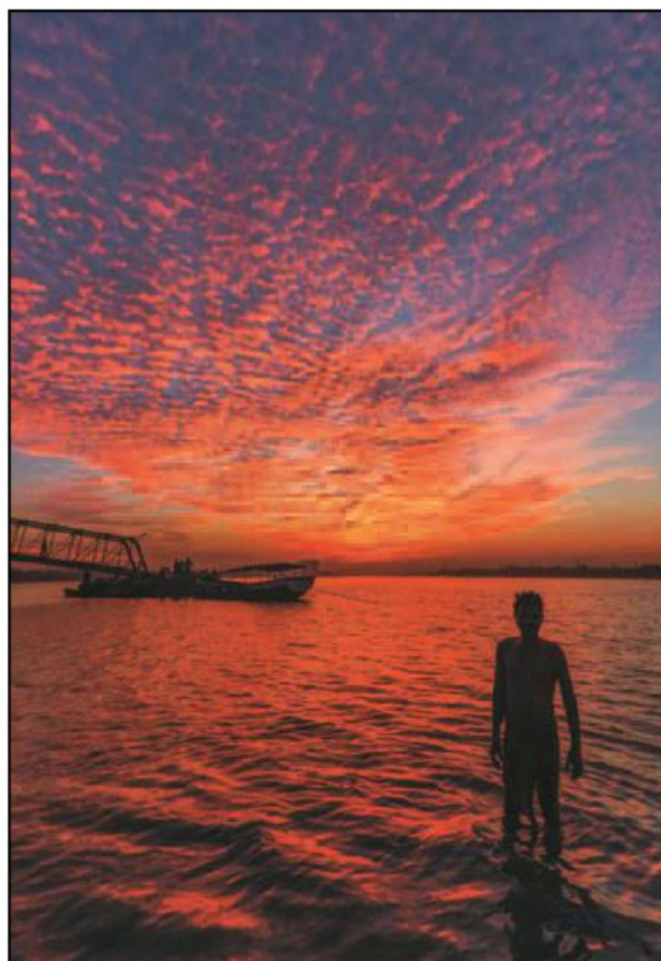
Name: Tanmay Mondal
Camera: NA
Aperture: NA
Shutter speed: NA
ISO: NA

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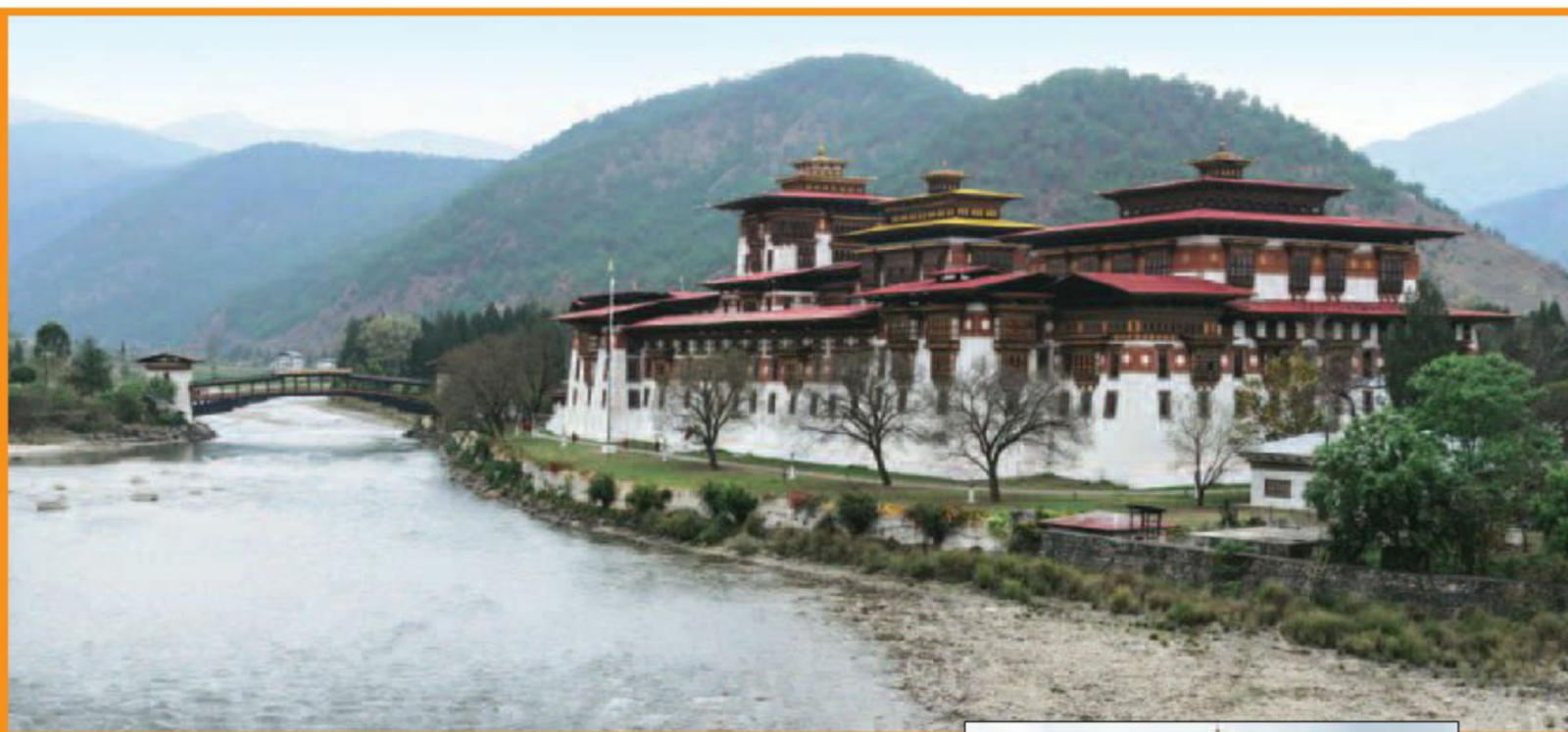
Bhutan, a monarchy is sandwiched between India and China. India looks after Bhutan's security needs. It is a small and beautiful country. The people are very friendly. The country's economy rests on tourism and agriculture. Indian tourist contribute towards a major chunk of tourism income. Even today it is not much spoiled by development and maintains the old world charm. It is totally a Buddhist nation. Beautiful architecture and the green fields are a treat to the eyes and it is a must visit place.