Current Status of Technological Advancement: Bangladesh Making Significant Progress in IT

CONTENTS

- Introduction
- Amano Co. Ltd. , Japan
- Govt Adopted IT Services: Digital Bangladesh
- Upcoming Mega IT projects: High Tech Parks
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- Scenario in IT Education and Job Sectors
- International Achievements in IT
- Bangladeshi IT Experts in Global Market
- Global Tech Companies in Bangladesh
- Operational Workflow of Amano Co. Ltd.
- Conclusion

INTRODUCTION

- High penetration of **IT facilities** and affordable services across Bangladesh
- Around **163 million** active cell phones, **102 million** with internet connectivity (64%) , thus making it easier for people to access the service
- Governments' initiative to reach the goal of **Digital Bangladesh** and **Vision 2021**
- Ensuring **affordable and available services** across the country
- A **potential opportunity** emerging in Bangladesh for the public, private and multinational IT enthusiasts

your trusted business partner...

A Multi-Purpose Company From Bangladesh

Est. on 28th December 2016

Address

8-4-28 Aoto, Katsushika-Ku, 125-0062 Tokyo, Japan.

Clients

- Ai-konzern Corporation co.,inc
- H.I.S. Co.,Ltd.
- Kake Educational Institution
- Sunshine College of Social Welfare & Child

Company Reg Number:

法人番号9/0118/0103/2718

Paid Employment Placement Business Permit:

13-ユ-310948

有料職業紹介事業許可証

許可番号13-ユ-310948

Tōroku shien kikan tōroku (kōshin) tsūchi-sho:

登録支援機関登録（更新）通知書1登録番号19登-002256

Trading License Number

東京都公安委員会許可第307751804290号古物商

Services

Technical Professional Service

IT Business Collaboration

IT Engineer Outsourcing

Student Consulting

Trading Business

Software Outsourcing

Apparel Production Support

Urban Development Investment Business

PRODUCTS OF AMANO CO. LTD.

CAR PARTS

COSMETICS PRODUCT

OUR STRENGTH

- Service Quality
- Highly Qualified Team
- Cheap Manpower
- Diversity

STRENGTH OF BANGLADESH

Strength of Bangladesh and its People:

- ❑ Rich IT resources
- ❑ International communication skill: Well versed in English, Hindi, and many people learn French, Japanese and Chinese
- ❑ Internet access avails online courses on IT and programming
- ❑ A large number of freelancer IT professionals

Industrial and IT Export Competitiveness of Bangladesh:

- ➢ Computer hardware
- ➢ Automobile manufacturing industry
- ➢ IT and E&E manufacturing company
- ➢ Energy efficient appliances
- ➢ Digitalization of public, private, and domestic sectors at large

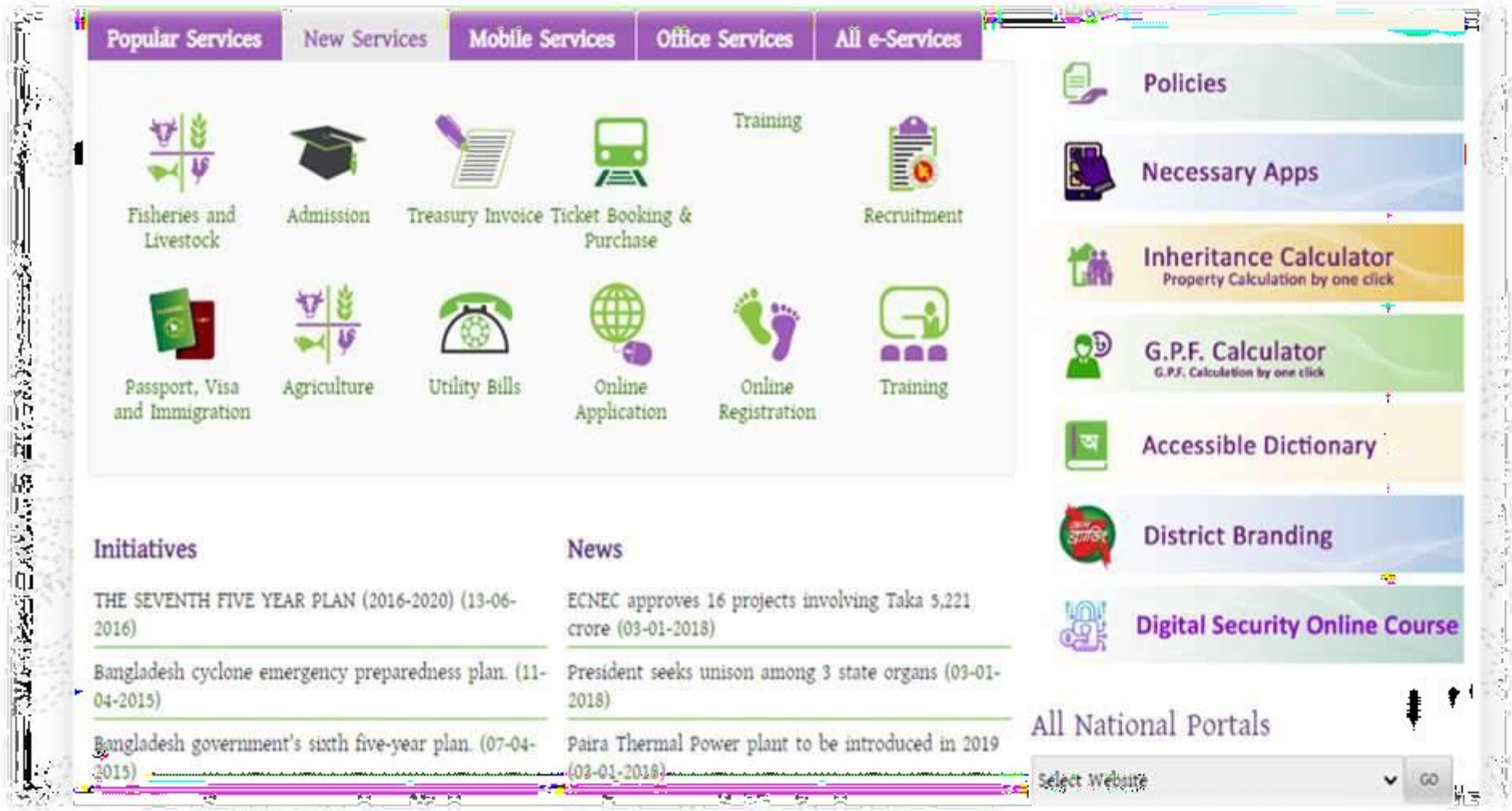
OFFICIAL GOVERNMENT E-SERVICE PORTAL

www.bangladesh.gov.bd

GOVERNMENT ADOPTED IT SERVICES: DIGITAL BANGLADESH

www.bangladesh.gov.bd

- ✓Online applications
- ✓Tax payment
- ✓Finance and banking
- ✓Education
- ✓Registrations
- ✓Passport and visa
- ✓Postal service
- ✓Recruitment
- ✓Health
- ✓Training
- ✓ Bill payment
- ✓Result publications
- ✓Treasury
- ✓Fisheries and animals
- ✓Admission applications
- ✓Publishing Government Circulars
- ✓Govt notices
- ✓Tenders
- ✓Quotations



GOVERNMENT IT SERVICES: DIGITAL BANGLADESH

www.bangladesh.gov.bd

A2I- ACCESS TO INFORMATION

জনগণের দোরগোড়ায় সেবা
Service @ Doorsteps

Country's largest IT platform that help innovation and support in ICT

www.a2i.gov.bd

GOVERNMENT IT SERVICES : ENACTING E-LAWS AND REGULATIONS

- Respective departments collect public opinion,
- Launch new laws and amend the old ones
- Bangladesh Government's recent initiative to set up e-court alongside all courts across the country (2020-2021)

www.bdlaws.minlaws.gov.bd

GOVERNMENT IT SERVICES: TELECOMMUNICATION

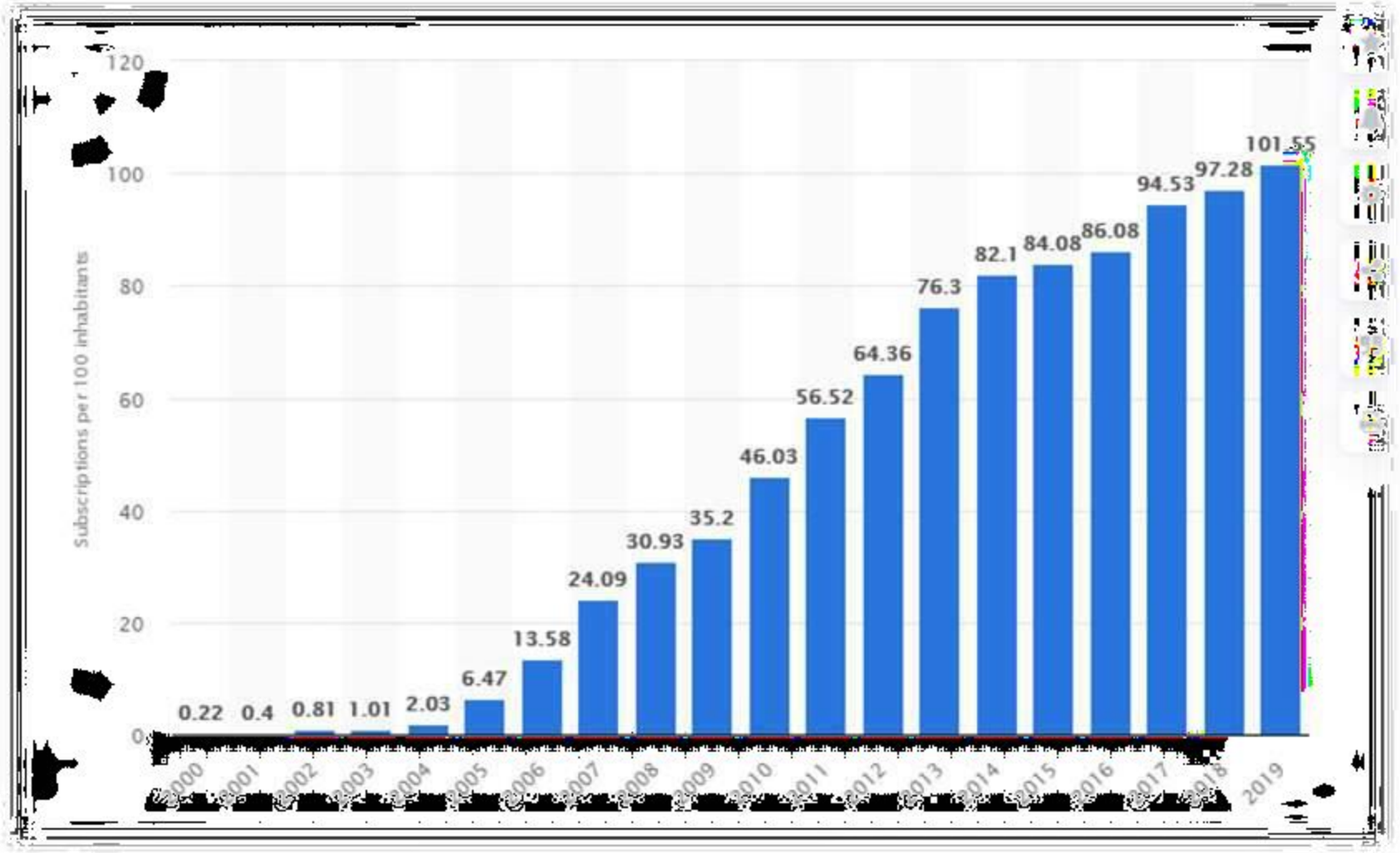
Land Phone and Mobile Operators : Services

People are informed about any important events and memorable days through SMS, 163 million people use mobile phones with the cheapest call rates and 102 million enjoy internet services.

Public Telecom Service:

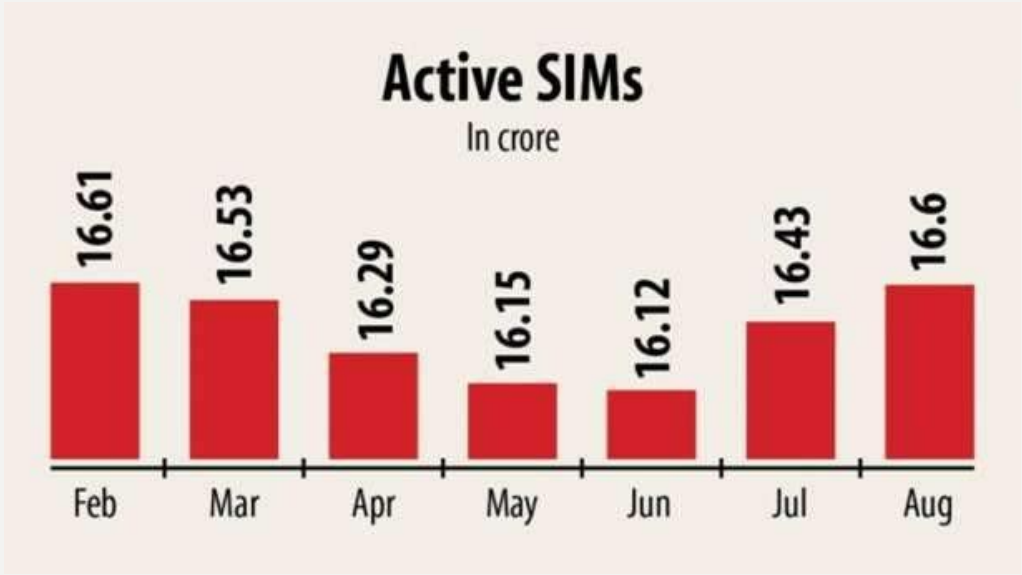
Bangladesh Telecommunication Company Ltd- 15,000 subscribers

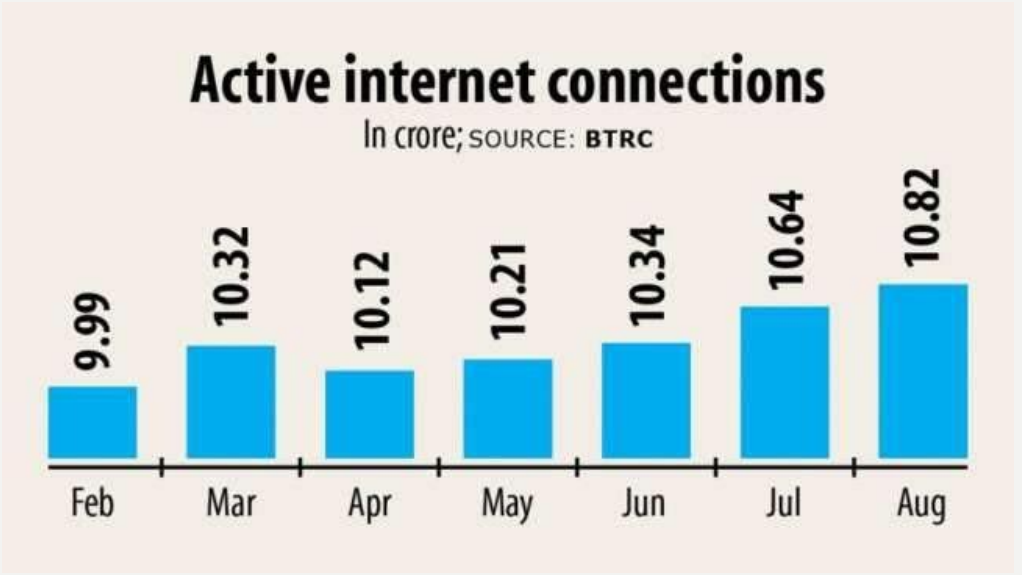
MAJOR TELCOM OPERATORS (MOBILE PHONE SERVICES) IN BANGLADESH



Number of mobile phone users in per 100 inhabitants in Bangladesh (2001- 2019)

CURRENT INTERNET USERS

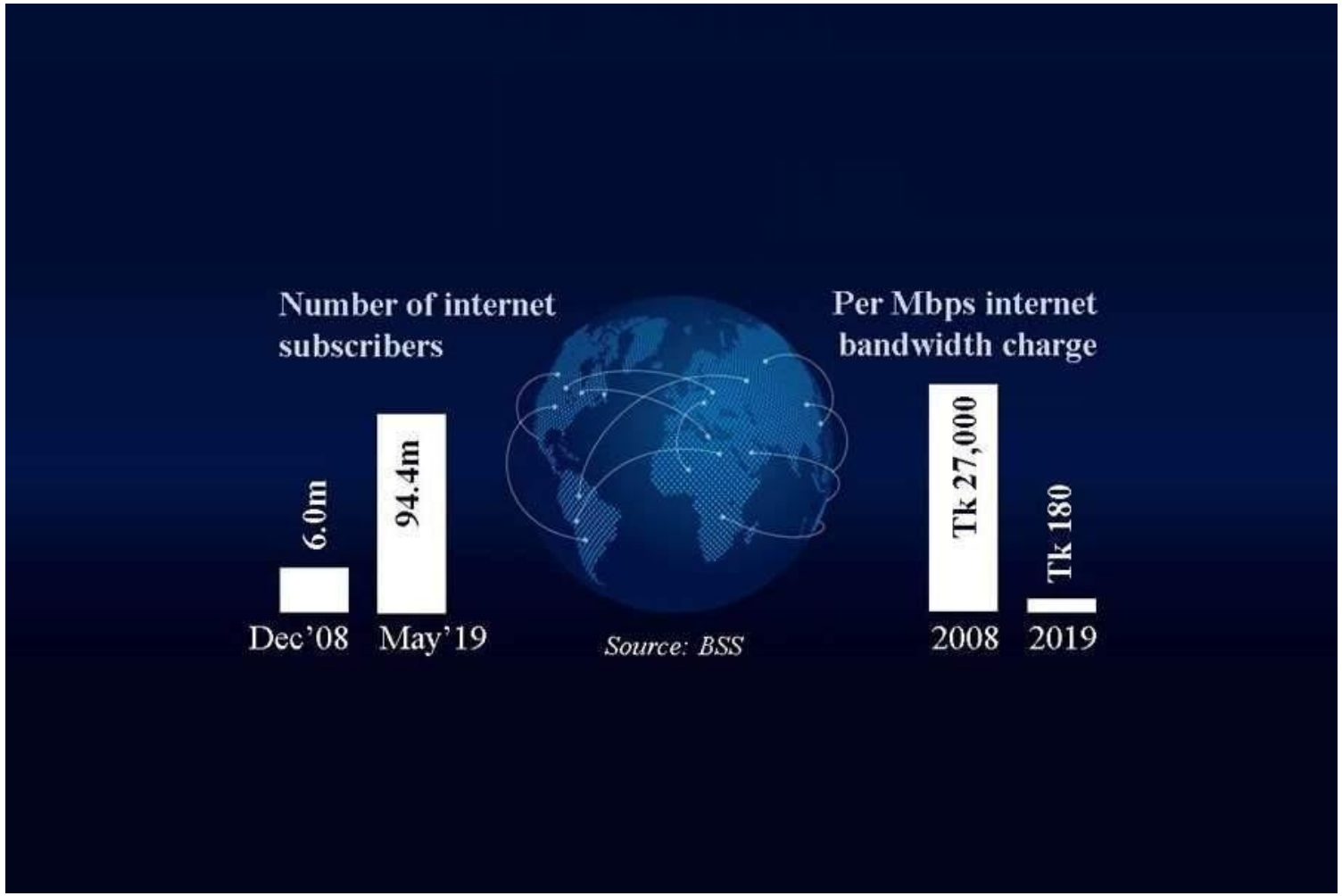




Active SIMs and internet connections (8 October 2020 by The Daily Star)

HIGH PENETRATION OF GSM COMMUNICATION

11.25 million new mobile phone subscribers in only 10 months of span



INTERNET USERS AND PER MBPS CHARGE (2008 & 2019)

PUBLISHED BY BSS

GOVERNMENT IT SERVICES: LAPTOP MANUFACTURE

A remarkable initiative “A laptop for A Student”

Manufactured by the **Telephone Shilpa Shangstha** (Organization of Telephone Industry)

Factory: Tongi, Gazipur, Bangladesh

Doel: Country Owned Laptop Brand

Doel: Bangladeshi Laptop Brand

- First Doel laptop was launched in 2011 for 130 US$ (11,000+ taka)
- World class laptop with core i processors and high configurations
- Affordable prices range starting from 10,000 taka (120 US$)

GOVERNMENT IT SERVICES: E-RECORD SERVICE

Settlement Record Services at the Doorsteps

- ❑ People can collect the records from e-service centers set up in all **64 districts**
- ❑ In many countries, people get harassed while collecting settlement records
- ❑ Service includes land tax payment, land measurement and acquisition

GOVERNMENT IT SERVICES: IN EDUCATION

E-textbook:

Downloadable pdf version of all textbooks of national curricula available on www.nctb.gov.bd

Accessible Textbooks:

- Primary School
- High School
- College
- Other eBook services

Online Classes:

All schools, colleges, and universities continue classes on Zoom and Google Meet during Covid pandemic

২০১৮ শিক্ষাবর্ষের নবম ও দশম শ্রেণির পাঠ্যপুস্তক

ক্রমিক	পাঠ্যপুস্তকের নাম	বাংলা ভার্সন	ইংরেজি ভার্সন
১।	বাংলা সাহিত্য	PDF	PDF
২।	বাংলা সহপাঠ	PDF	PDF
৩।	বাংলা ভাষার ব্যাকরণ	PDF	PDF
৪।	English for Toady	PDF	PDF
৫।	গণিত	PDF	PDF
৬।	চারু ও কারুকলা	PDF	PDF
৭।	তথ্য ও যোগাযোগ প্রযুক্তি	PDF	PDF
৮।	ক্যারিয়ার এডুকেশন	PDF	PDF
৯।	রচনাসম্ভার	PDF	PDF

Examination Result and Admission : THROUGH INTERNET

www.educationboardresults.gov.bd

Results of all public academic examinations can be found on government website and, also via cell phone.

Admissions at colleges and universities are conducted through website.

For admission, from form submission to paying fees everything is possible through websites.

Public Academic Examinations in Bangladesh:

1. Primary Education Completion-PEC
2. Junior School Certificate-JSC equivalent, Junior Dakhil Certificate-JDC
3. Secondary School Certificate-SSC equivalent, Dakhil Certificate
4. Higher Secondary Certificate-HSC equivalent, Alim Certificate

E-PERMIT AND SERVICES

For industrial products-

- Order
- Permission and
- Supply

➢ For Passport application and renew

➢ For education board results

E-PERMIT AND SERVICES

- For Payroll and work permit
- For voter and NID cards

GOVERNMENT IT SERVICES: BANKING

Mobile and Internet Banking:

High-tech banking with 10,000+ ATMs across the country, in almost all public and private Banks

Mobile App Banking:

- ✓Nogod (by Post Office- Public) ;
- ✓bKash (Brac Bank),
  23M bKash users as of 2020
- ✓Rocket (DBBL Bank) ;
- ✓Sure cash
- ✓T-cash, mCash, UCash
- ✓DBBL Mobile Banking
- ✓Ok wallet

BANGLADESH MOBILE BANKING APP SERVICES

MOBILE APP BANKING

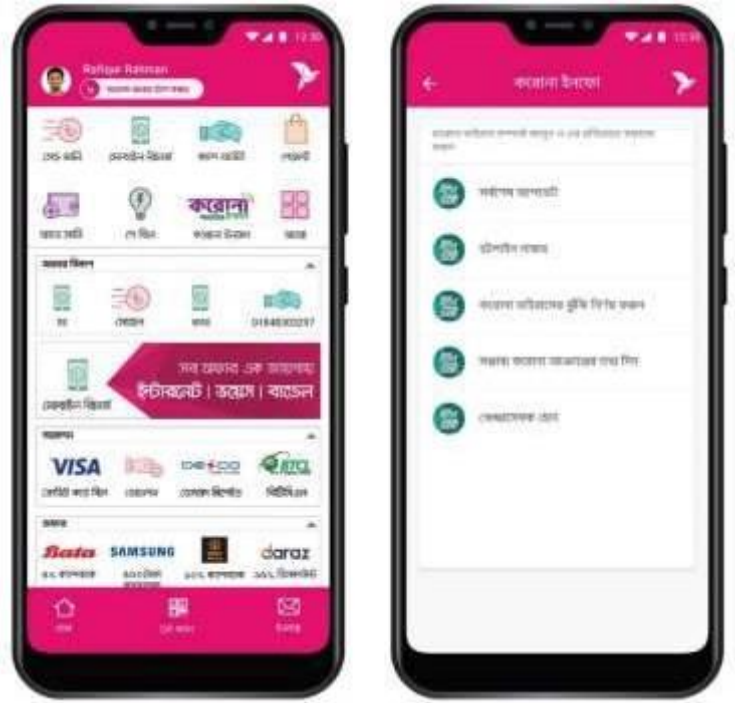
Accessible Services on Mobile Apps:

Bill Payment: Gas, electricity, Water bills are paid through apps

Send Money: Balance transferred to other users

Cash out: Money in cash withdrawn from agents, at anywhere needed

Ticket: Tickets purchased and shopping payment from apps



Comparison Of ATM's And Branches in SAARC Countries

ATMs in Record Number:

7 ATM Booths for per 100k adults, now it's more in numbers with a total of 10,924 as of February 2020. DBBL occupies the highest number of 1273 ATMs across the country.

Source: The world bank

Country	Branch Per 100,000 Adults							ATM Per 100,000 Adults						
	Rank	2010	2011	2012	2013	2014	2015	Rank	2010	2011	2012	2013	2014	2015
Afghanistan	161	2.46	2.29	2.21	2.34	2.40	2.25	166	0.55	0.64	0.66	0.73	0.78	0.96
Bangladesh	117	7.47	7.67	7.87	8.04	8.22	8.37	143	2.06	3.62	3.94	4.83	5.65	6.79
Bhutan	80	14.30	16.27	12.47	16.03	15.49	15.35	109	8.34	13.95	7.74	19.72	22.16	26.82
India	90	10.04	10.51	11.19	11.85	12.87	13.55	120	7.27	8.85	10.99	12.87	17.80	19.71
Maldives	99	12.23	12.20	12.25	11.97	12.05	12.13	107	17.20	17.37	20.90	22.53	26.86	27.97
Nepal	113	5.19	7.37	8.40	8.31	8.42	8.86	136	-	7.37	7.48	8.21	8.82	8.96
Pakistan	108	8.64	8.81	9.06	9.39	9.66	10.04	138	4.41	4.88	5.47	6.52	7.55	8.79
Sri Lanka	72	15.98	17.40	18.01	18.31	18.44	18.58	121	13.46	15.15	15.80	16.48	16.87	17.16

Source: The World Bank

Verified by sslcommerz

Accepted Cards

Mobile Banking Channels

Internet/SMS Banking Channels/Wallet

CARD PAYMENT SERVICE IN BANGLADESH

PAY ANYTIME ANYWHERE

Credit and Debit Card Payment, Anywhere:

- Credit card payment at shopping malls
- Restaurants and
- Groceries

- Nexus by **Brac Bank**, **City Bank**; Visa, Nexus Pro and Mastercard by **DBBL** are popular.

CARD USERS ACROSS BANGLADESH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SSC	1	1.0	1.0	1.0
	HSC	19	19.0	19.0	20.0
	Diploma	6	6.0	6.0	26.0
	Graduate	53	53.0	53.0	79.0
	Masters	20	20.0	20.0	99.0
	Others	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Service Holder	39	39.0	39.0	39.0
	Business	26	26.0	26.0	65.0
	Others	35	35.0	35.0	100.0
	Total	100	100.0	100.0	

39% Service Holders, 26% Businessman, 35% Others

ONLINE BANKING ACROSS BANGLADESH

- Total number of ATM booths across Bangladesh reached **10,924** at the end of December 2019.
- **7,665** ATMs are situated in urban areas and the rest **3,259** in rural areas.
- Total number of CDMs stood at **1,407** at the end of 2019, which was **1,324** at the end of 2018.
- The number of CRMs increased to **254** from 126
- Total cash transactions through ATMs stood at Tk **147.05** billion in December 2019 which was Tk **121.03** billion in December 2018.

GOVERNMENT SPONSORED SERVICES : E-HEALTHCARE

1. Dial **333** (Online assessment in ICDDRB for Covid19)

2. **Maya Apa** mobile app

3. **Doctorola.com**

E-HEALTHCARE SYSTEMS IN BANGLADESH

Medic Bangladesh- Doctors and Patients can interact each other by using apps and services

Dhaka University Telemedicine Service currently available in remote areas across the country

GOVERNEMT IT SERVICE IN DOMESTIC : DIGITAL ELECTRICITY METER AND PREPAID BILLING SYSTEM

Deployed by the Power Division of Bangladesh Government

UPCOMING MEGA IT PROJECTS:

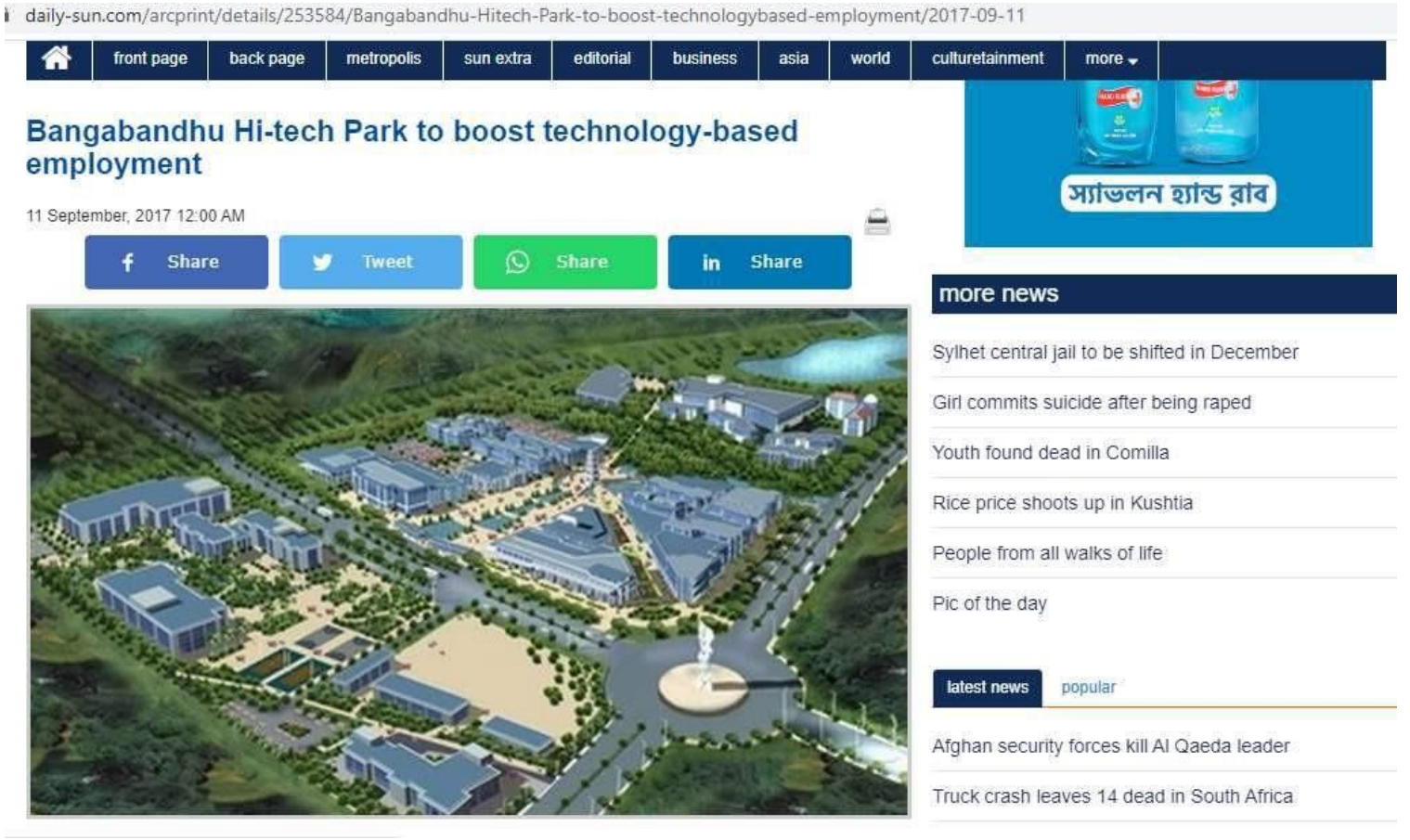
HIGH TECH PARKS

- 28 High Tech Parks being developed across the country; in Jessore, Rajshahi, Gazipur etc.
- Offering IT and IT Enabled Services, and employment opportunities

UPCOMING MEGA IT PROJECTS:HIGH TECH PARKS

- High Tech Parks to boost technology-based employment
- 14,000 new technical job positions in each parks
- 300,000 projected positions in total

Published on the Daily Sun (September 2017)



OTHER PRIVATE IT ENABLED SERVICES

Ride Sharing Apps

Food Home Delivery Apps

TOP ONLINE SHOPPING PLATFORMS IN BANGLADESH

clickbd

evaly
Online Shopping Mall

Bikroy.com
বাংলাদেশের সবচেয়ে বড় মার্কেটপ্লেস

Emerging Technology and Scenario of IT Job Sector in Bangladesh

Source:
The Business insider, November 10, 2020

Estimated Number of IT Graduates: 20,000+ every year

Employment in IT Sectors: 14,000+ every year

IT Companies Across the Country: 1087 BASIS registered companies

BASIS : Bangladesh Association of Software and Information Services, companies include Bangladesh Government owned, Private companies, and MNCs.

Emerging Technology and Scenario of IT Job Sector in Bangladesh

Source:
The Daily Star, October 29, 2019

Strong Demand for IT Graduates :
77.1% job placed in IT, while overall graduate job placement be 40%

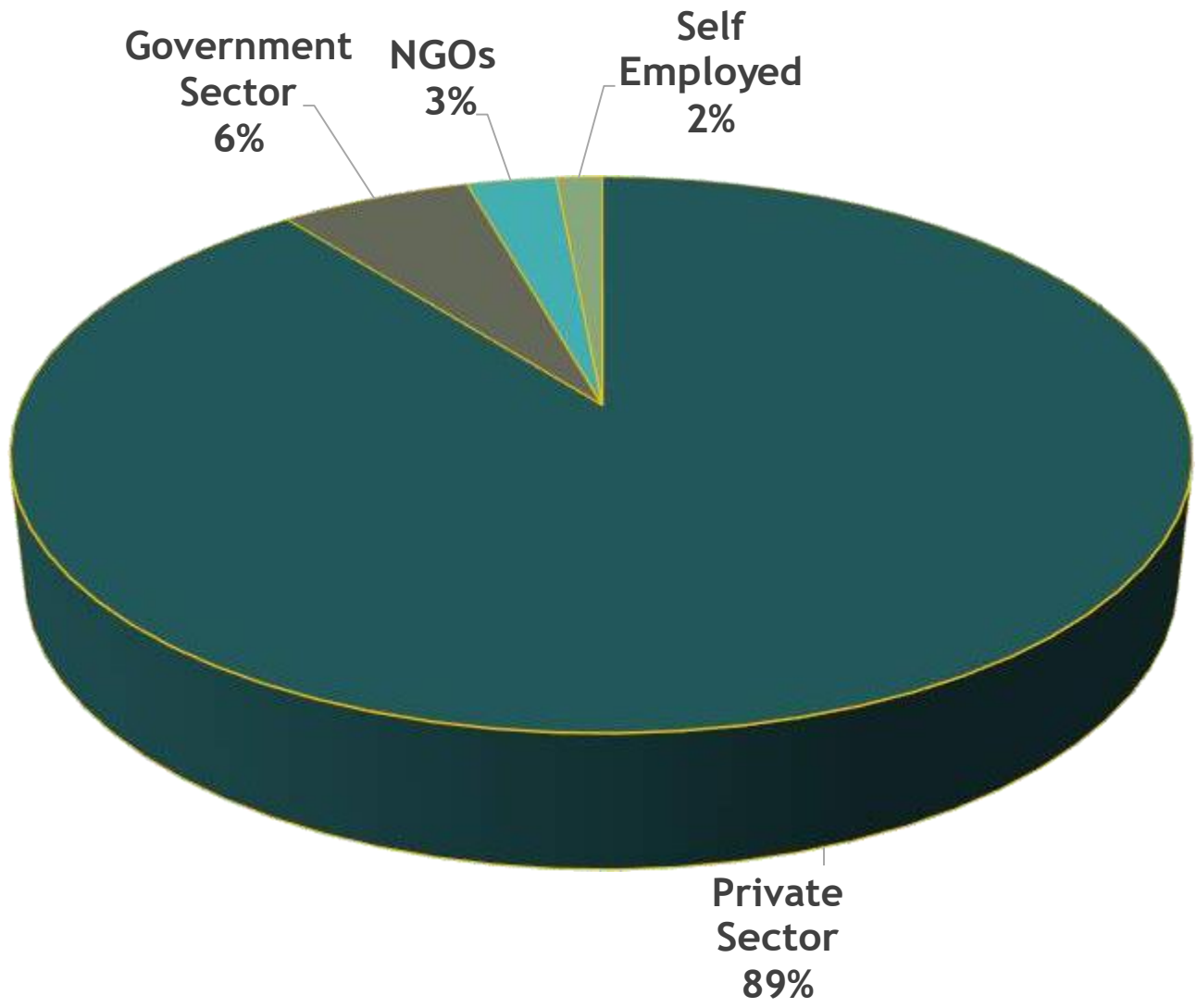
Gender Variation in IT Career:
Male: 82.2% Female: 58.6%

High Salary in IT:
Average IT engineer salary is Tk 38,780, while overall average is Tk 30,000.

Emerging Technology and Scenario of IT Job Sector in Bangladesh

Source:
The Daily Star, October 29, 2019

Employer IT Companies are Mostly the Private Companies



INTERNATIONAL ACHIEVEMENTS IN IT AND ENGINEERING

Bangladeshi Technologist Developed Information Monitoring Robot: A B.Sc. in Engineering graduate, **Mr. Navid Bin Ahmed** developed a **Robot for information monitor and transmission** for radioactive nuclear zones at Bangladesh Atomic Energy Commission. He was invited in Thailand to present this work in 2018.

New concepts in Telemedicine and Power Electronics Presented by SECS faculty and student at Electronics Conference at Atomic Energy Center

Faculty members and a student of School of Engineering presented new scientific developments at the Conference on Electronics and ICT at the Atomic Energy Center on Friday, April 20th. Prof. S. Khan presented how a generalized approach to Telemedicine can be used for increasing present capabilities of health care at remote locations. Dr. Razzak presented his invited paper on new power electronic circuits for connecting to the power grid. EEE student Navid Ahmed presented his Autonomous Robot designed for radioactive areas, made with collaboration with the Atomic Energy Center. The conference was organized by Bangladesh Electronics Society and was attended by many many prominent academics and professionals. Professor Farruk Ahmed of SECS was the Chief guest.

News Link: http://www.iub.edu.bd/articles/index/915/New-concepts-in-Telemedicine-and-Power-Electronics-Presented-by-SECS-faculty-and-student-at-Electronics-Conference-at-Atomic-Energy-Center

INTERNATIONAL ACHIEVEMENTS IN IT AND ENGINEERING

Mr. Navid Bin Ahmed (third from right) developed a **software and hardware-based health monitoring system** and was invited by the Inventive Research Organization in India to present the developed work.

Bangladeshi Technologist Presented IT Enabled System In International Conference In **India**

INTERNATIONAL ACHIEVEMENTS IN IT AND ENGINEERING

Rover Challenge:

A team from the departments of Electrical and Electronics Engineering and Computer Science and Engineering of Independent University Bangladesh (IUB) became Champion in **Rover Challenge 2018**, held in **Utah, USA**

IUB became first in whole Asia in the University Rover Challenge 2018

"Team Attendant", the team of the Independent University, Bangladesh (IUB) secured first position in whole Asia in the University Rover Challenge (URC) 2018 held at Utah, USA. "Team Attendant" became second in Asia in URC 2017 as well.

The University Rover Challenge (URC) is the world's premier robotics competition for university students organized by the Mars Society, sponsored by Protocase and Microsoft, held annually in the Mars Desert Research Station (MDRS), southern Utah in the United States. URC challenges student teams to design and build the next generation of Mars rovers that will one day work alongside astronauts exploring the Red Planet.

Last year "Team Attendant" placed 10th worldwide in URC 2017 while this year the team fought back strongly to secure 6th position globally and first in Asia after competing with 36 tough teams from Universities all around the world such as Cornell University, Stanford University and University of Michigan from USA, University of Toronto, Canada, Monash University from Australia and IIT Madras and IIT Bombay from India. Other Bangladeshi participating universities were AIUB, BRAC, BUET, CUET, Daffodil International University, IUT, KUET, Ahsanullah University, Leading University Sylhet, North South University, and Rajshahi University.

PCz Rover Team from the Czestochowa University of Technology became first while MRDT from Missouri University of Science and Technology, USA secured second and Kielce University of Technology's Team IMPULS clinched third position in this global

INTERNATIONAL ACHIEVEMENTS IN IT AND ENGINEERING

Nano satellite **Onnesa** launched from Texas Space Center, USA was developed by Bangladeshi graduates

INTERNATIONAL ACHIEVEMENTS IN IT

Nasa Space App Challenge 2019

national | economy | world | sports | entertainment | life style | arts | special | corporate | opinion | more

Winners of space app challenge to visit NASA

Staff Correspondent

20th June, 2019 11:42:50

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The winning team of a Space App Challenge has been invited by US space agency NASA to attend a shuttle launching event in July.

The space agency sent the invitation to the winners and organizers of the Space App Challenge to join Falcon-9 Space Shuttle launching programme at Kennedy Space Center on July 20.

Team Olik from Shahjalal University of Science and Technology (SUST) secured the first position beating 1395 teams around the world in the Best Use of Data category. The team developed a virtual reality application which enables users to experience the NASA lunar landing site virtually.

Information and Communication Technology (ICT) division will lead the Bangladesh delegation during the visit to NASA.

ICT State Minister Zunaid Ahmed Palak has expressed delight to the achievements saying that the youths are advancing the country's vision for Digital Bangladesh.

BASIS President Syed Almas Kabir said, "The achievement of our youths has made us proud."

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- Full text of PM's address to the nation
- News of the day
- A woman wearing a face mask amid concerns over coronavirus
- UN to create global corona fund
- Iran reports 127 new deaths, raising toll to 1,812

latest news | popular

ADB Partners with BMJ on New COVID-19 Guidelin for Health Worke

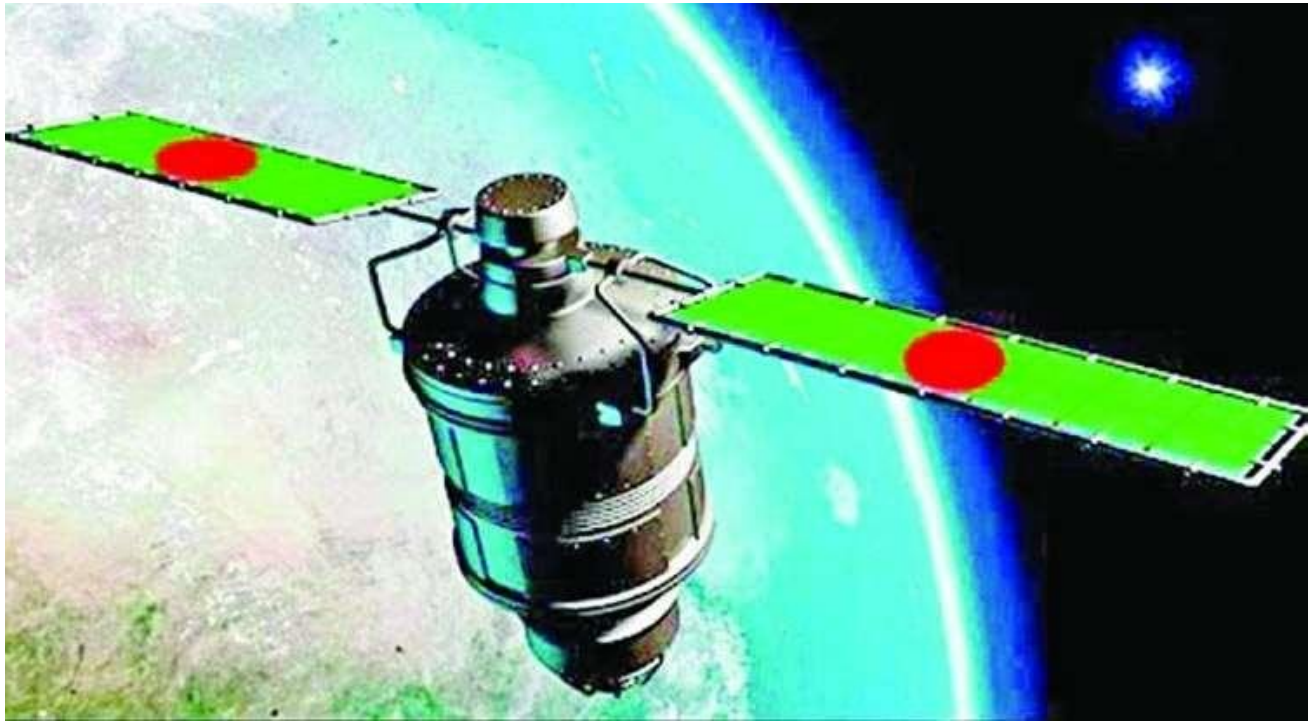
PDB fears loss a power

Take A Cl Photograp

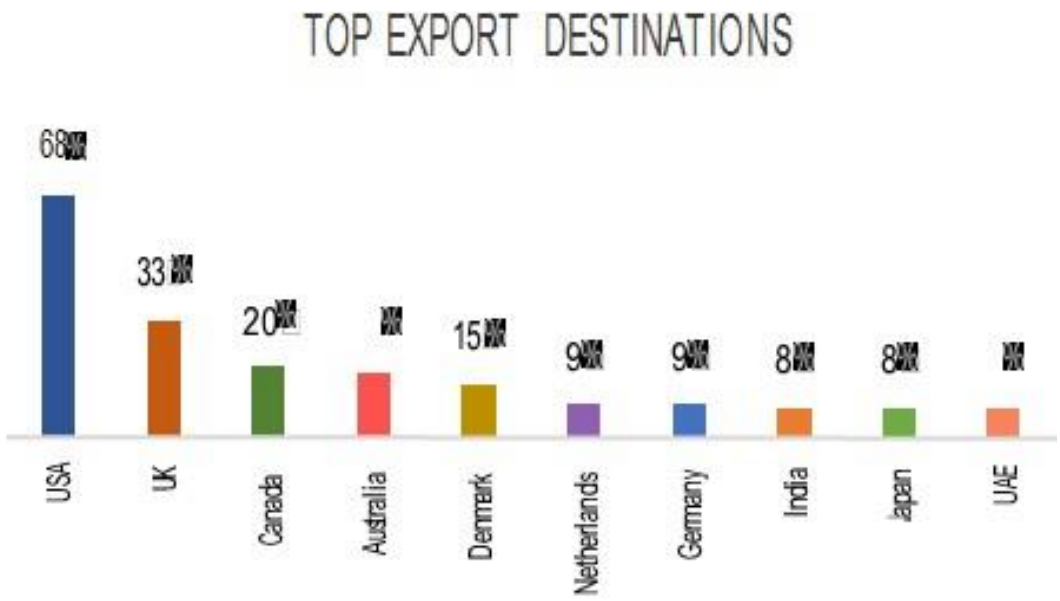
Gadgetheory

BANGLADESHI WINNERS VISITED NASA IN JULY 2019

BANGABANDHU SATELLITE: B-SAT-I IN ORBIT, LAUNCHED IN MAY 2018



SOURCE: BASIS, EPB



SOURCE: BASIS

IT AND ITES GROWTH KEY TO ACHIEVING DIGITAL BANGLADEH

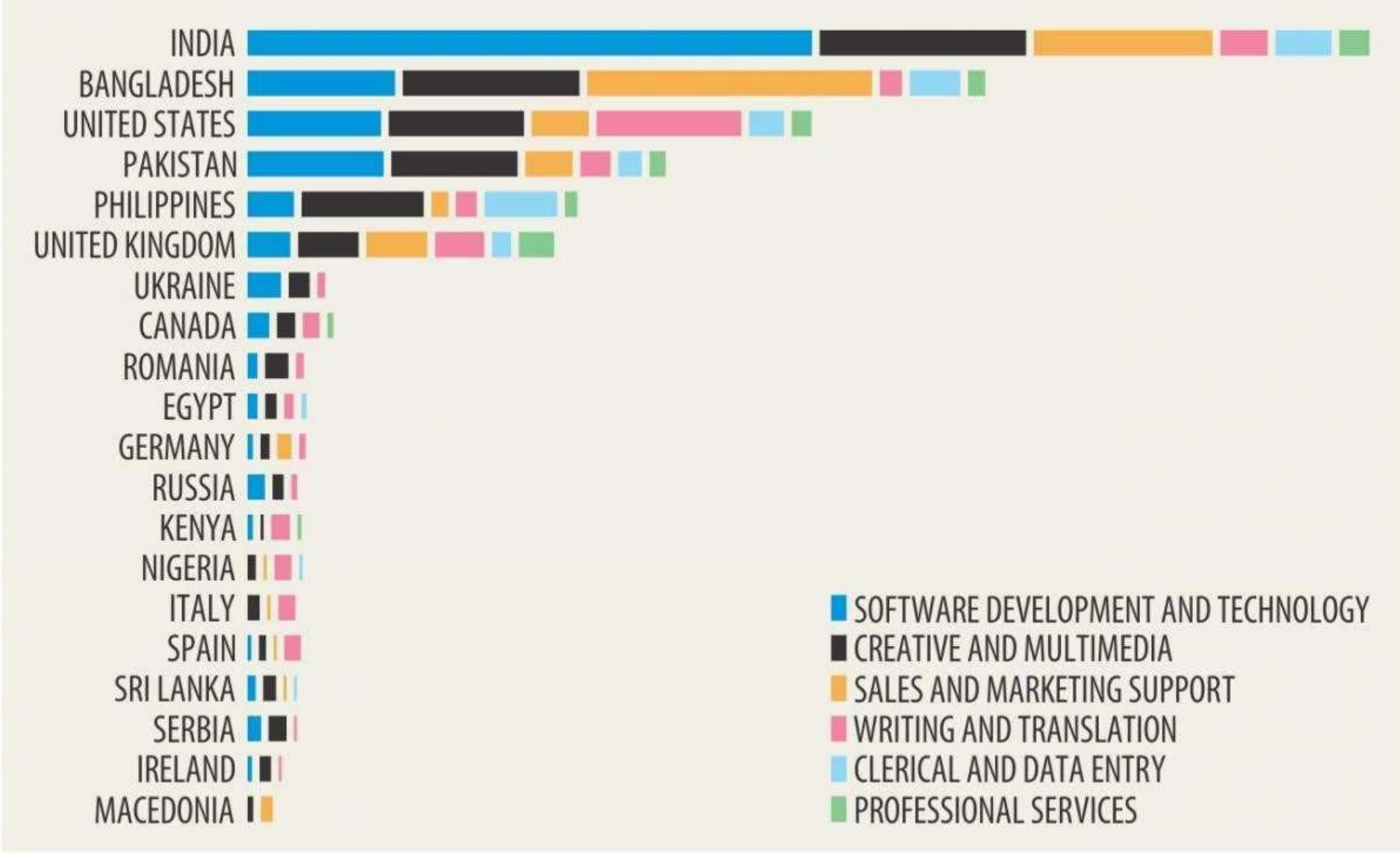
BANGLADESHI IT EXPERTS IN GLOBAL MARKET

- AIUB (American International University Bangladesh) IT Graduate- **Engr. Zahid Sabur** in **Google** (Pr Software Engineer, occupies the position of a Director)
- Six **BUET** Computer Science and Engineering Graduates in Microsoft (from a single Batch)
- Islamic University of Technology at Gazipur, Bangladesh Graduate **Shadman Pratik** in **Google Dublin** (appointed in 2020)
- University of Dhaka Graduate, another Bangladeshi Scientist **Mahmuda Sultana, Mahjabin** Haque occupied positions in **NASA**
- Our graduate occupies position in **Facebook Bangladesh** Section
- Our IT experts and Engineers occupy many positions in Japan, China, Korea, USA, and UK.
- Bangladeshi IT engineers and professionals have significant contribution in **IT freelancing** sectors

BANGLADESH: 8TH IN FREELANCING

BANGLADESH MAKING 27% CONTRIBUTION PLACING IT IN THE 8TH POSITION IN FREELANCING IN THE THE WHOLE WORLD

STATE OF THE ART TECHNOLOGY GROWTH IN BANGLADESH



GLOBAL TECH COMPANIES IN BANGLADESH

Our Product

Walton Bangladesh:

- Country's' largest Electronics, Electrical, IT, and IT enabled products manufacturing company
- Employing 20,000+ people
- Hi-tech industries at 680+ acres of land,
- Manufacturing and exporting products to European and Asian markets

Products of Walton

02:13 PM, July 21, 2017 / LAST MODIFIED: 02:19 PM, July 21, 2017

Microsoft to train 50,000 Bangladeshi students

Ties up with Young Bangla

BSS, Dhaka

Microsoft has partnered with a Bangladeshi youth network for providing basic computer training to around 50,000 students in different educational institutions across the country.

Young Bangla, the youth network, has involved 2,100 educational institutions and started

Microsoft partners with Young Bangla for providing basic computer training to around 50,000 students in different educational institutions across the country. Photo: Collected

TOP NEWS

- Still not getting adequate PPE: almost half of doctors, nurses surveyed by TIB say
- BB cuts credit risk for banks to speed up stimul fund disbursement
- Rising number of accounts takes banks closer t people
- France, Germany call to reform open-border Schengen area
- Opposition, treasury bench MPs laud Father of Nation in Parliament
- US to work with new Myanmar govt to promote

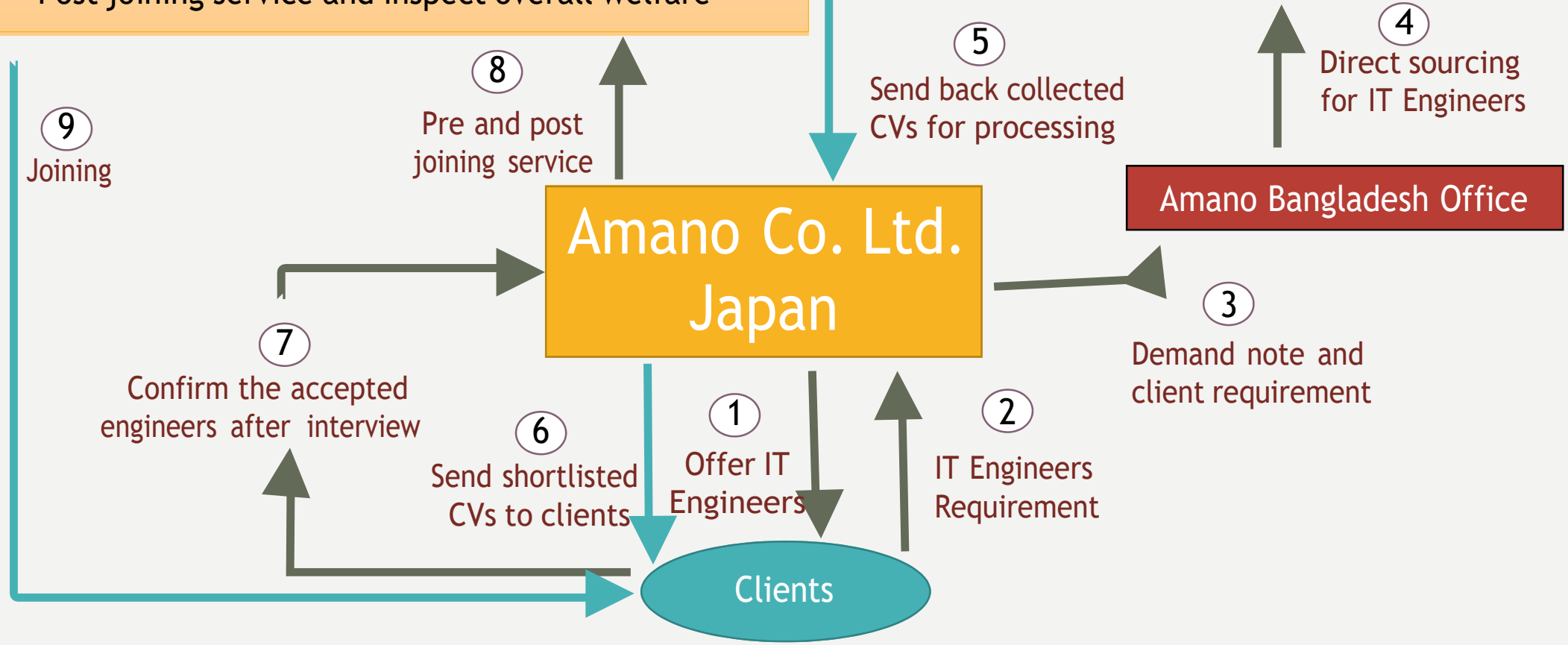
Microsoft Trains 50,000 Bangladeshi Students

OPERATIONAL WORKFLOW OF AMANO CO LTD.

your trusted business partner...
A Multi-Purpose Company From Bangladesh

- ✓ Public and private colleges and universities
- ✓ Engineering, science and technology universities
- ✓ Registered HR and recruitment agencies
- ✓ Social media and national dailies
- ✓ Japanese language schools
- ✓ Professional IT companies

- ✓ Initiate visa process of the recruited engineers
- ✓ Facilitate communication and initial accommodation
- ✓ Post joining service and inspect overall welfare



CONCLUSION

- Yearly budget in ICT by Bangladesh Government is 4651 Crore, 7% (2020-21)
- Global tech ventures invest to businesses in Bangladesh
- Much needed to incorporate technological benefits for the rest of the world
- Tech enthusiasts must be given platforms to get more skills and obtain hand-on experience
- Experts must be given platforms to apply the skills and knowledge
- Amano Co. Ltd. plays significant role in maintaining the collaboration between Bangladesh and Japan promoting IT experts and services in both the countries

REFERENCE

1. **Mobile phone users in Bangladesh**
https://unb.com.bd/category/bangladesh/mobile-phone-users-in-bangladesh-hit-162920-mn-in-april-btrc

2. **Bangladesh Govt Budget:**
https://mof.gov.bd/site/view/budget_mof

3. **High Tech Park Employment Opportunities:**
https://www.daily-sun.com/arcprint/details/253584/Bangabandhu-Hitech-Park-to-boost-technologybased-employment/2017-09-11

THANK YOU