

Preparing for Digital Transformation

MASTER OF INFORMATION TECHNOLOGY



What is digital transformation?

- Not just digitization → converting information from analog to digital, e.g. changing records from stack of papers to files in computer
- □ Not just digitalization → using digitized information to make established business more efficient, e.g. making queries faster
- □ Digital transformation is finding *new ways* of doing business using digitized data and technology, e.g. online taxi or ojek service → disruption is coming!



Digital transformation

- Not just asking: "How much faster can we do things the same way?"
- More asking: "What is our technology really capable of, and how can we adapt our business and processes to make the most of our technology investments?" → find added value in new ways!

Drivers:

- Customer's happiness → millennials have digital-first mind-set
- Industry 4.0 and digital era \rightarrow connectivity of people and devices



Business needs to change

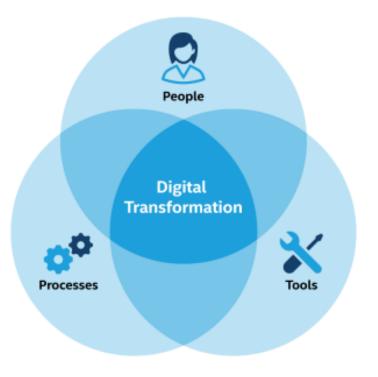
- Customers want 24/7 always-ready services
- □ Employees can be empowered by digital technology → easy to collaborate, access information, work anytime and anywhere → may need cultural change
- Acceleration through pandemic time





Digital transformation architect

- □ Digital transformation can not be by trialand-error → too much at risk
- □ Need to see business values, available technology → make strategic planning
- Goal: digital transformation that really creates added values for business





Master of Information Technology (MIT)

- Established in 2000, accreditation B
- Vision: to create digital transformation architect
- Students are professionals and fresh graduates
- Competent lecturers from industry and academics
- Concentrations:
- Data Science Cyber Security
- Data Science Business Informatics
- Digital Innovation





Vision and Focus

Vision:

Becoming a master program in information technology which is excellent in the field of cyber security, IT governance, and business informatics; and is recognized nationally and internationally by 2025

Focus:

Training future **digital transformation architect**



Mission

- Conducting competence-based education focusing on cyber security, IT governance, and business informatics which follows the current development in IT technologies
- 2. Conducting **research** focusing on applications of cyber security, IT governance, and business informatics
- 3. Conducting **community service** in implementation of IT in society
- Creating and maintaining good relationship and mutually beneficial
 cooperation with other institutions, both nationally and internationally



Concentrations

- Data Science is very important in the future
- □ Cyber Security: everything is connected → security becomes very important
 → MIT SGU is pioneer in cyber security, founder of IHP (Indonesian Honeynet Project), collaboration with BSSN (Badan Siber dan Sandi Negara)
- □ Business Informatics → business alignment with technology innovations → coaching IT managers, give new perspectives, innovation valuation
- □ Digital Innovation → more research based program → solving the unique problem in digital transformation



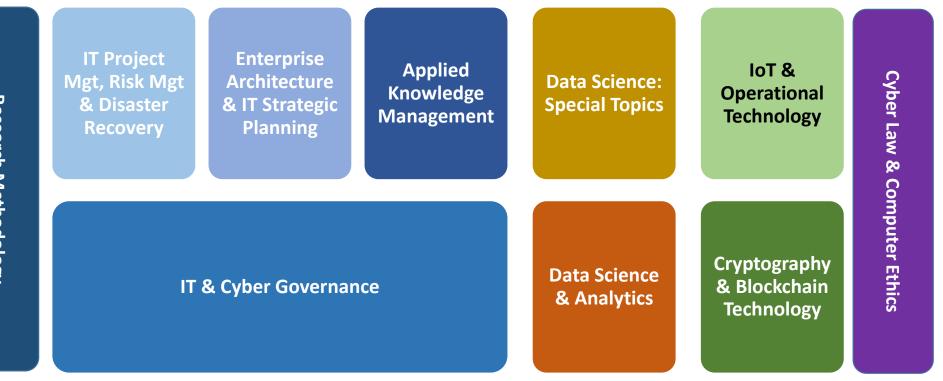


Curriculum

- There are mandatory courses and elective courses
- □ The elective courses corresponds to the concentrations:
- 1. Data Science Cyber Security
- 2. Data Science Business Informatics
- Face-to-face classes are held on Saturdays (currently done online)

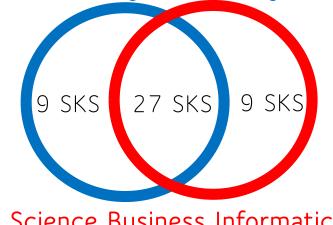


Common courses



Concentrations

Data Science Cyber Security



Data Science Business Informatics

Data Science Cyber Security



 Network security, Ethical hacking, Incident handling & Digital forensics, Web/application security

Data Science Business Informatics

 Digital Business & Cyber Marketing, IT valuation and Technopreneurship, Human capital & Organization behavior, Data management & Governance

Data Science Business Informatics	SKS	Data Science Cyber Security	SKS	
SEM 1		SEM 1		
Digital Business & Cyber Marketing	3	Network Security	3	Data Science
IT Project Management, Risk Management &	2	IT Project Management, Risk Management &	2	_
Disaster Recovery	5	Disaster Recovery	5	Cyber
Enterprise Architecture & IT Strategic Planning	2	Enterprise Architecture & IT Strategic Planning	2	
IT & Cyber Governance	2	IT & Cyber Governance	2	Security &
Research Methodology	2	Research Methodology	2	•
SEM 2		SEM 2		Data Science
Cryptography & Blockchain Technology	2	Cryptography & Blockchain Technology	2	Data Delettee
Data Science and Analytics	2	Data Science and Analytics	2	Business
IT Innovation, Valuation and	2	Ethical Hacking	2	
Technopreneurship	2		2	Informatics
Human Capital & Organization Behavior	2	Incident Handling & Digital Forensics	2	IIIUIIIaucs
Data Science : Special Topics	2	Data Science : Special Topics	2	
Applied Knowledge Management	2	Applied Knowledge Management	2	
SEM 3		SEM 3		
Cyber Law & Computer Ethics	2	Cyber Law & Computer Ethics	2	
Data Management & Governance	2	Web & Mobile Application Security	2	SWISS GERMAN UNIVERSITY
Internet of Things & Operational Technology	2	Internet of Things & Operational Technology	2	
SEM 4		SEM 4		
Thesis	6	Thesis	6	
TOTAL	36	TOTAL	36	

Digital Innovation	
SEM 1	
Research Project 1	6
IT Project Management, Risk Management & Disaster	3
Recovery	د
Research Methodology	2
Total semester 1	11
SEM 2	
Research Project 2	6
Elective 1	3
Enterprise Architecture & IT Strategic Planning	2
IT & Cyber Governance	2
Total semester 2	13
SEM 3	
OFSE (Oral Final Study Exam)	C
Elective 2	2
Elective 3	2
Elective 4	2
Thesis	6
Total semester 3	
TOTAL	



- Suitable for students who have specific problems to be solved
- Finding solutions through research, coached by experienced and competent lecturers

Conference & journal

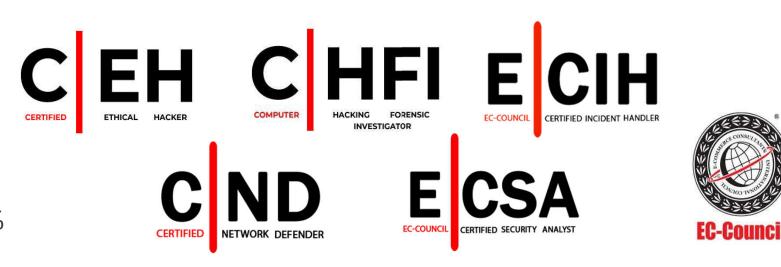
- All master students must create papers
- Facilities from MIT SGU:
- Conference: ACMIT (Annual Conference on Management & IT)
- E-journal: JAICT (Journal of Applied Information, Communication and Technology)





Certification in Cyber Security

- Curriculum is integrated with certification material
- EC-Council certification 50% discount for students





No.	Name	Education/experience	
1.	Dr. Eka Budiarto, S.T., M.Sc.	 S1 Teknik Fisika, Institut Teknologi Bandung, 1998 S2 Industrial Mathematics, TU Kaiserslautern, 2000 S3 Applied Mathematics, TU Delft, 2015 Researcher at Fraunhofer ITWM, Germany 	
2.	Dr. Ir. Moh. A. Amin Soetomo, M.Sc.	 S1 Teknik Elektro, Universitas Indonesia, 1990 S2 Information Management, George Washington University, 1992 S3 Information Management, George Washington University, 2002 Vice President of IT Enterprise Security/Deputy General Manager of IT Division, BNI Head Office Jakarta Indonesia 	





No.	Name	Education/Experience	
3.	Dr. Adhiguna Mahendra, S.Kom., M.Sc.	 S1 Ilmu Komputer, Universitas Indonesia, 2001 S2 Ilmu Komputer, Universitas Indonesia, 2005 S2 Vision and Robotics, Heriot-Watt University, 2008 S3 Industrial Vision and Image Processing, Universite de Bourgogne, 2012 Chief Technology and Operation Officer, PT Aero System Indonesia Chief Research Product Innovation, Nodeflux 	
4.	Dr. Maulahikmah Galinium, S.Kom., M.Sc.	 S1 Teknik Informatika, SGU, 2007 S2 Information System, Lunds Universitet, 2009 S3 Computer Science, University of Rome Tor Vergata, 2013 	





No.	Name	Education/experience
5.	Dr. Mulya R. Mashudi, S.T., M.E.M.	 S1Teknik Sipil, Universitas Trisakti, 1993 S2 Engineering Management, The George Washington University, 1996 S3 Engineering Management (Information Systems and Technology), The George Washington University, 2000 Shell, Nokia, Smartfren CEO, Start up: Kuul Communities
6.	lwan Setiawan S.H.,L.LM., PhD	 S1 Hukum, Universitas Gadjah Mada, 1992 L.LM. Internet & Electronic Law, Monash University, 2001 S3 Law, Wollongong University, 2015 Involved in drafting cyber law in Indonesia Bank Indonesia Institute, Bank Indonesia

No.	Name	Education/experience
7.	Asep S. Suntana, S.Hut., M.A., Ph.D.	 S1 Kehutanan, Institut Pertanian Bogor, 1993 S2 Sustainable International Development, Brandeis University, 2004 S3 Forest System and Bio-energy, University of Washington, 2011 Program Director, KEHATI
8.	Dr. Charles Lim, B.Sc., M.Sc., CTIA, CHFI, EDRP, ECSA, ECSP, ECIH, CEH, CEI	 S1 Electrical Engineering, University of Wisconsin – Madison, 1989 S2 Electrical Engineering, University of Hawaii – Manoa, 1991 S3 Teknik Elektro, Universitas Indonesia, 2019 Chapter Lead, Indonesia Honeynet Project Researcher in computer security, in collaboration with IDSIRTII/Kominfo/BSSN/Kemhan









Name

Ipung, M.Eng.

Dr. Ir. Heru

Purnomo

No.

9.

Education/experience	
 S1 Teknik Komputer, Institut Teknologi Sepuluh November, 1992 	
• S2, Information Technology, RMIT University, 1994	
 S3, Ilmu Komputer, Institut Teknologi Sepuluh November, 2019 	1751
Consultant, Accenture	1-2
Expert at LPS, Kemhan	

ICT consultant, Worldbank Expert in telematics, Kominfo • 10. Dr. Ir. Lukas, S1 Teknik Elektro, Institut Teknologi Bandung, 1995 ٠ MAI, CISA S2 Artificial Intelligence, KU Leuven, 1998 • S3 Electrical Engineering, KU Leuven, 2003 • Lecturer (Computer Architecture, Microprocessor • Systems, Artificial Intelligence, Image Processing, Computer Security), Universitas Katolik Atma Jaya





No.	Name	Education/experience	
11.	Dr. Eng. Bagus Mahawan, B.Eng, M.Eng.	 S1 Mechatronics, Robotics, and Automation Engineering, Nagaoka University of Technology, 1995 S2 Mechatronics, Robotics, and Automation Engineering, Nagaoka University of Technology, 1997 S3 Information and Control Technology, Nagaoka University of Technology, 2000 Founder, Invosa Systems (IT based automation) 	
12.	Burman Noviansyah, S.T., MSISPM, CEH, CyFIR	 S1 Teknik Informatika, Institut Teknologi Bandung, 2002 S2 Information Security Policy and Management, Carnegie Mellon University, 2014 IT Security Specialist, Bank Indonesia Technical IT Security Advisor and Investigator, Gojek 	



No.	Name	Education/experience
S N C	Kalpin Erlangga Silaen, S.Si., M.Kom., CISSP, CEH, ECIH, ECSA, CHFI	 S1Geofisika, Institut Teknologi Bandung, 2001 S2 Master of Information Technology (MIT), Swiss German University, 2016 Chief Technology Officer, PT Royal Audrey Megah (Layer Speed, web hosting & IT solution services) Senior Information Security consultant
N	Dr. Magfirawaty, S.Si., M.Si.	 S1 Fisika Instrumentasi, Universitas Indonesia, 2004 S2 Fisika Instrumentasi, Universitas Indonesia, 2007 S3 Teknik Elektro, Universitas Indonesia, 2018 Researcher in cryptography Lecturer at Politeknik Siber dan Sandi Negara





Seminar and Workshop







SG



Disrupting the Disruptors

What is blockchain? Why do we need it? What are its applications? Find out the answers in the seminar organized by Master of Information Technology (MIT) at Swiss German University (SGU) in collaboration with Blockchain Zoo, a global association of Blockchain experts and technology professionals!



Pandu Sastrowardoyo

Co-Founder of Blockchain Zoo Blockchain: Real World Use Cases



Burman N.

JI. Jalur Sutera Barat 15, Alam Sutera, Tangerang

Saturday, 29 September 2018

SGU Prominence Tower campus

09.00 - 12.00 WIB

Lecturer at Master of Information Technology (MIT), SGU

Get Your Feet Wet with Blockchain



Registration: siti.lestari@s
or via Google
https://goo.gl/



https://www.sgu.ac.id/

· Registration is needed to obtain certificates

Free of charge

https://blockchainzoo.com/

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TOWARDS APPLICATION OF **BIG DATA ANALYSIS** IN HEALTH RELATED PROBLEMS

SEMINAR & WORKSHOP

KESEHATAN MASYARAKAT



THE PROMINANCE TOWER JL. JALUR SUTRA BARAT KAV.15 BCA 0350847723 ALAM SUTRA, TANGERANG A/N Brian Sudirman BANTEN

Sertifikat, Seminar Kit,

Informasi dan Fasilitas Konfirmasi Pembayaran: BRIAN SUDIRMAN Makan Siang dan Snack. 0897 9403 778 (whatsapp)



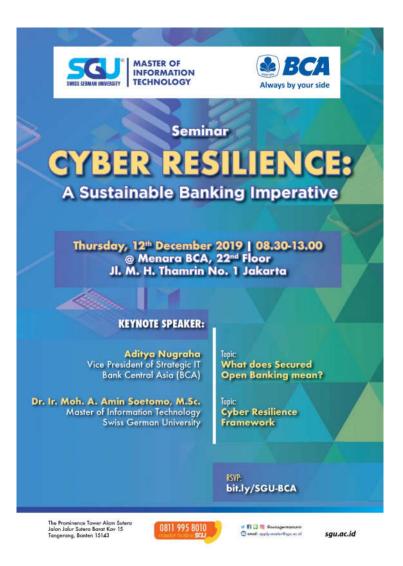














5GU

MIT









SGU.ac.id

SGU Master of Information Technology and Amazon Web Services

WEBINAR SERIES

Part 1 Digital Resilience Aspects of Working from Home

Wednesday, 29 April 2020 15.00

Topic: Enterprise Digital Workplace Gorvenance and Risk Moh. A. Amin Soetomo, D.Sc

Work and Study from Home with AWS Petra Novandi Barus

Free Limited Seats

Registration bit.ly/sgumitaws SGU Master of Information Technology and Amazon Web Services WEBINAR SERIES

Part 2 Scalable Digital Workplace Architecture Wednesday, 13 May 2020 | 03.00[°]PM

Topic: IT Architecture Planning: Digital Workplace Transformation Dr. Ir. Heru Purnomo Ipung M.Eng

Work and Study from Home with AWS Petra Novandi Barus

Free Limited Seats

Registration bit.ly/sgumitaws

SWISS GERMAN UNIVERSITY

SGU.ac.id

aws











Business Transformation & Digital Workspace Clinic

COALS

Digital Workplace Governance: Roadmap to Productivity

Thursday, 23 April 2020 - 03.00 PM

LIMITED SPACE

Registration bit.ly/sgudigitalclinic

SGU.ac.id







SGJ Digital Clinic





SGJ Digital Clinic & Seminar







Digital Clinic



SERIES ARTIFICIAL INTELLIGENCE AN OVERVIEW FROM ENTERPRISE ARCHITECTURE PERSPECTIVE

Speaker

Erwin Hendradi, M.Sc Solution Architect at PT Arvitech Mega Solusi

Moderator

Dr. Eka Budiarto, S.T., M.Sc



THURSDAY, JANUARY 7, 2021 3 PM









SERIES DEVELOPING ACHIEVABLE AND MANAGED IT SERVICE

Speaker

Tine Sopaheluwakan, M.Kom MIT SGU Alumni & VP at PT Inixindo

Moderator

Dr. Eka Budiarto, S.T., M.Sc



THURSDAY, JANUARY 21, 2021 3 PM



Registration bit.ly/digitalclinicsgu





Digital Clinic



SPEAKER

Andi Budimansyah Student MIT SGU and Chairman of Indonesia IT Federation

Dr. Sinta Dewi Rosadi, SH, LLM Cyber Law Centre, FH UNPAD

Moderator

Dr. Eka Budiarto, S.T., M.Sc



THURSDAY, FEBRUARY 4, 2021 Zoom 2 PM



Registration s.id/xDW5L





SERIES DIGITAL FORENSICS IN ORGANIZATIONS

SPEAKER

Kalpin Erlangga Silaen, M.Kom, CISSP, CEH, CHFI, EČŠA, ECIH, ISO 27001 LI MIT SGU Alumni & Senior Security Consultant

Moderator

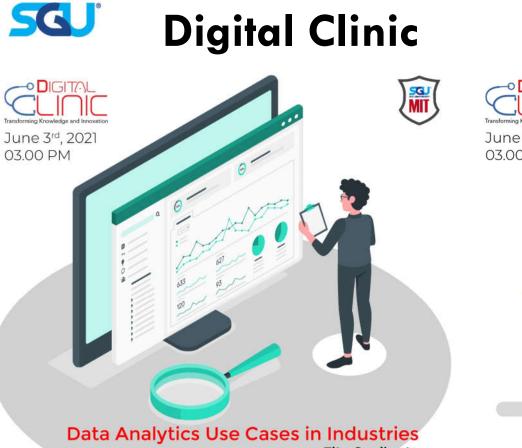
Dr. Eka Budiarto, S.T., M.Sc



THURSDAY, FEBRUARY 11, 2021 3.00 PM







Tito Sugiharta Head of Professional Services at SAS Indonesia

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E-Government SPBE Performance Andi Yuniantoro M.Kom

Alumni MIT SGU and Director Inixindo Jogja

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SGJ Digital Clinic











EXPOSING HONEYNET THREAT SHARING PLATFORM

Wednesday, July 22, 2020 | 01.30 PM

Research Funded by ISIF Asia (An APNIC Foundation) isif.asia/2019-grant-recipients/

Threat Sharing Platform Dr. Charles Lim, Msc. | Swiss German University Indonesian Malware Center

Dr. Sulistyo, S.Si., S.T., M.Si. | BSSN

Threat Intelligence Yohanes Syailendra, M.Kom. | Indonesian Honeynet Project



Webinar

Registration bit.ly/sgumitwebinar



DATA SCIENCE IN ACTION: AGAINST COVID-19 PANDEMY

THE USE OF AI IN ASSISTING COVID-19 MEDICAL DIAGNOSTIC Dr. Ir. Lukas, MAI, CISA, IPM

Lecturer at Unika Atma Jaya and Master of IT SGU, Chairman of Indonesia Al Society

AI CHATBOT FOR POPULATION HEALTH DATA COLLECTION IN COVID 19 PANDEMIC

dr. Gregorius Bimantoro Chairman HealthTech.id, Founder ProSehat.com

Wednesday, July 29, 2020 | 03.00 PM



Registration bit.ly/sgumitwebinar

SGU.ac.id SWISS GERMAN UNIVERSITY

Seminar & workshop







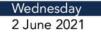




FEBRUARY 17, 2021 9.30 AM - 12.00 PM (WEBINAR) 1.00 PM - 4.00 PM (WORKSHOP)



Honeynet Threat Sharing: Building Collaboration in the Cyber Security Community



Webinar 08:30 - 12:00 Workshop 13:00 - 16:00



NEGARA







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Seminar and workshop







Training, Workshop and Webinar Security Insights in the Data Analytics Era

21st July 2021 Training & Workshop 22nd July 2021 Webinar



SGJ MoU Badan Siber dan Sandi Negara



MOU SGU & BSSN | 24 November 2018 | Tangerang, Indonesia MALWARE Research Collaboration 45

SGJ Training Bangladesh Energy Team (Surabaya & Bali)







SGJ Academic Analysis of Privacy of Data Regulation



Partner:

Kementerian Komunikasi dan Informasi (KOMINFO) Republic of Indonesia