

# WELCOME

*While we wait for others to join, please enter the correct answers in the chat! (for example 1C, 2B...)*

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**A. TROJAN HORSE**

**B. PHISHING**

**C. BOTNET**

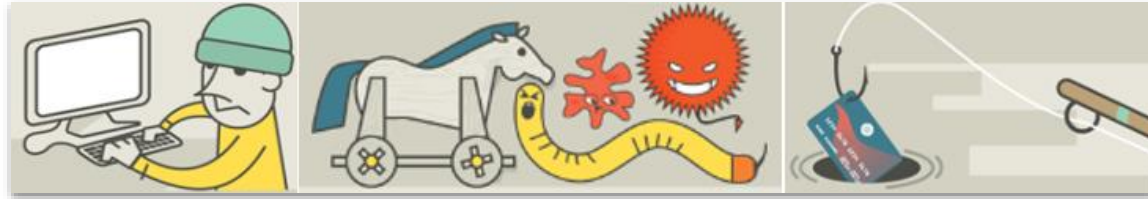
**D. MALWARE**

**E. VIRUS**

1. \_\_\_\_\_ short for malicious software, this type of unwanted software that is installed without your consent.
2. \_\_\_\_\_ is a destructive computer program that masquerades itself as benign file or application (such as .jpg or .doc). It then opens a “backdoor” or access to your PC without your knowledge.
3. \_\_\_\_\_ is a large network of compromised computers. A malicious software enables cybercriminals to control your computer without your knowledge and use it to execute illegal activities, such as send out spam, or spread viruses.
4. \_\_\_\_\_ harmful computer programs that are designed to spread from one computer to another and interfere with computer operations. It can corrupt or delete data on your computer and damage your hard drive.
5. \_\_\_\_\_ is a type of online identity theft that used email and fraudulent websites designed to steal your personal data or information, such as credit card numbers, passwords, account data, etc.

# ★ANSWERS

1. **MALWARE (D)**: short for malicious software, this type of unwanted software that is installed without your consent.
2. **TROJAN HORSE (A)** is a destructive computer program that masquerades itself as benign file or application (such as .jpg or .doc). It then opens a “backdoor” or access to your PC without your knowledge.
3. **BOTNET (C)** : is a large network of compromised computers. A malicious software enables cybercriminals to control your computer without your knowledge and use it to execute illegal activities, such as send out spam, or spread viruses.
4. **VIRUS (E)**: harmful computer programs that are designed to spread from one computer to another and interfere with computer operations. It can corrupt or delete data on your computer and damage your hard drive.
5. **PHISHING (B)**: is a type of online identity theft that used email and fraudulent websites designed to steal your personal data or information, such as credit card numbers, passwords, account data, etc.



# Information Communication Technologies (ICT) & Digital Media (DM) Sector

San Diego & Imperial Counties Community Colleges

## K-14 Regional ICT & DM Discussion Forum

*Friday, December 18, 2020*



POWERED BY

California Community Colleges

**Information, Communications, Technologies (ICT) & Digital Media (DM) Sector  
K-14 Discussion Forum**

**Friday, December 18, 2020 | 2:00 - 3:00 p.m.**

**AGENDA**

- |  |                         |
|--|-------------------------|
| <b>I. Welcome and Introductions</b> (3 min.)   | Duane Rinehart          |
| <b>II. ICT &amp; Digital Media-Related Resources</b> (5 min.)                        |                         |
| ▪ San Diego County Office of Education   | Bryan Glasrud           |
| ▪ Imperial County Office of Education  | Norma Gamez             |
| ▪ Imperial Valley Regional Occupational Program                                      | Adriana Hernandez       |
| <b>III. Cybersecurity Curriculum</b> (25 min.)                                       |                         |
| ▪ Consultant, Online and Blended Learning<br>Curriculum Design and Instruction       | Mary Kraus              |
| <b>IV. Cybersecurity Engineer, Role and Responsibilities</b> (25 min.)               |                         |
| ▪ Cybersecurity Consultant   | Fabian Martinez-Mendoza |
| <b>V. Closing</b> (2 min.)   | Monica Rosas            |
| ▪ ICT & Digital Media Discussion Forum <a href="#">Survey</a>                        |                         |
| ▪ Upcoming: "Careers in ICT and Digital Media": Friday, January 22, 2:00 - 3:00 p.m. |                         |
| ▪ Next K-14 ICT & DM Discussion Forum: Friday, February 19, 2:00 - 3:00 p.m.         |                         |

# CREATECH 2021

ICT AND ENGINEERING

APRIL 26  
TIME: TBD  
WHERE: ZOOM

CONTACT BRYAN GLASRUD FOR  
REGISTRATION INFORMATION:  
BRYAN.GLASRUD@SDCOE.NET

WEB DESIGN  
NETWORKING  
INFORMATION  
TECHNOLOGY  
SOFTWARE  
ENGINEERING  
AEROSPACE  
ENGINEERING  
AND MORE!



- The K-12 Cybersecurity Resource Center  
<https://k12cybersecure.com/resources/>
- K-12 Education Cybersecurity Foundations - LEADS  
<https://www.youracclaim.com/org/ibm/badge/k-12-education-cybersecurity-foundations-leads>
- SDCOE ICT Collaboration Resources  
<https://bit.ly/ICTSectorCollaboration>
- College and Career Readiness Department's ICT Career Exploration  
<https://cte.innovatesd.org/ICT>



IMPERIAL COUNTY

# STRONG WORKFORCE PROGRAM CONSORTIUM

YOU ARE INVITED TO JOIN US

# CTE TEACHER PROFESSIONAL LEARNING NETWORK

INFORMATION AND  
COMMUNICATION TECHNOLOGIES



🕒 3:30 PM



CLICK HERE TO REGISTER

<http://icoe.k12oms.org/1158-196762>

FOR MORE INFORMATION  
HEAL@ICOE.ORG

Join us for our first ever ***Information and Communication Technologies***  
CTE Professional Learning Network

**Date:** February 11th

**Time:** 3:30 pm

**Register here:**


**<https://icoe.k12oms.org/1158-196762>**




Visit our website for the recording

**IMPERIAL VALLEY  
CTE REGIONAL ADVISORY COMMITTEE  
ARTS & MEDIA/ ICT  
BREAKOUT SESSION EVENT**

**DEC 2, 2020  
3:15PM-4:15PM**



Join us for a virtual session meeting with guest speakers Duane Rinehart, Regional Director, Industry Engagement - San Diego and Imperial Counties, John Zanazzi Director of HIT, Greg Argendeli Asc. VP of Engineering, at GigakOM, Rafael Augustin Executive Director of Latino Film Institute, & Sergio Monserrate Director of Operations of The Latino Film Institute.



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**STRONG WORKFORCE  
PROGRAM CONSORTIUM**

We had our Arts and Media breakout session on Dec. 2nd. In case you missed it, visit our site to check out the recording and other resources.

<http://bitly.com/ivropctecac>





IMPERIAL COUNTY

# **STRONG WORKFORCE**

PROGRAM CONSORTIUM



# Cybersecurity Curriculum

Mary Kraus, Consultant  
Online and Blended Learning Curriculum  
Design and Instruction



# Cybersecurity Engineer: Role and Responsibilities

Fabian Martinez-Mendoza  
Senior Cyber Security Engineer

# FABIAN MARTINEZ-MENDOZA CAREER JOURNEY

## CUYAMACA COLLEGE:

Associate of Science -  
Networking, Security and  
System Administration -  
Enterprise Networking,  
Business and Technology;  
2016 - 2018

## Licenses & Certifications

Security+CompTIA

**G2SF**; Systems Engineer  
(C&A/IA); 2014-2016

**HP**; Technical Lead/  
Information Assurance -  
Enterprise Engineering;  
2003-2014

**UNITED STATES  
AIR FORCE**;  
Network Security/  
C&A/IA; 1999-  
2003

**KSH SOLUTIONS,  
INC.**; Cyber Security  
Analyst/RMF; 2017

**FALCONWOOD,  
INCORPORATED**;  
Cyber Security  
Analyst; 2016-2017

**SENTAR INC.**; Cyber  
Security Specialist -  
RMF; 2019

**BD**; Principal  
Security Engineer;  
2018-2019

**PHILIPS HEALTHCARE  
INFORMATION SOLUTIONS**;  
Senior Cyber Security  
Engineer; 2019-Present

**Trilogy Education**;  
Cybersecurity Bootcamp -  
Teaching Assistant; Jun  
2020-Present

# Fabian Martinez-Mendoza

## Cybersecurity Consultant

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### Industries

Health IT and Department of Defense

### Current Position

Product Security Engineer

### Role

Apply cybersecurity hardening standards to develop secure medical device products and health IT systems. Certify and comply with industry specific standards such as FDA, DoD, NIST, EUMDR, HIPAA, etc.

# Fabian Martinez-Mendoza

## Cybersecurity Consultant

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### Day-To-Day

- Maintain up to date the security posture of medical systems to ensure compliance with security and industry standards
  - Vulnerability Assessments
  - Security Risk Assessments
  - Monitor changes and security standards
  - Review Penetration Testing results
- Evaluate new product designs and ensure they are being developed with “Security in mind”
- Advise R&D teams on how to mitigate/remediate security risks
- Promote Cybersecurity culture

# Fabian Martinez-Mendoza

## Cybersecurity Consultant

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### Soft skills to consider

- Good communication and presentation skills
- Ability to listen and understand to customer needs
- Ability to articulate complex concepts and translate to simple terms or concepts
- Business Acumen
- Curiosity
- Patience

# Fabian Martinez-Mendoza

## Cybersecurity Consultant

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### What is the Cybersecurity industry is looking for?

- Experience, if no experience, demonstrate interest... The “Knack”  
<https://www.youtube.com/watch?v=myF6Nlz0EBo>
- **Certifications**
  - Security+
  - Certified Ethical Hacker (CEH)
  - CISSP
  - LPIC-1 (Linux)
- **Languages**
  - Python
  - Bash (Unix/Linux)
  - PowerShell (Windows)
- Cybersecurity Bootcamp Certificate



# Cybersecurity/Networking Certifications

Organization	Certification	Demand	
		Jobs <sup>(1)</sup>	Percent
CompTIA	Security+, CASP+, CySA+, Network+ PenTest+	5,742	86%
Cisco	CCNA, CCNP, CCIE	229	3%
SANS	GIAC – (GSEC, GSNA, GICSP, GCIH, GCFA, GCED, GCIA)	229	3%
(ISC) <sup>2</sup>	CISSP, CCSP	177	3%
ISACA	CISA, CISM	120	2%
AXELOS	ITIL	111	2%
Wireshark	WCNA	32	<1%
Solarwinds	Solarwinds Certified Professional	26	<1%
EC-Council	Certified Ethical Hacker (CEH), CHFI, ECSA	16	<1%

# Recommendations (CC)

- Inventory of Programs with emphasis on CompTIA certs
  - Align curriculum to industry certification objectives and C-ID<sup>(1)</sup>
- Apply to become Certification Provider Member / Academy
  - Webinars, posters, free faculty cert vouchers, faculty training, institution testing center
- Increase enrollment [from K-12] through cyber camps
  - Promote cyber camps through mentoring high schoolers & networking
- Host and/or promote cyber Meetups
- Encourage cyber faculty to join Infraguard<sup>(2)</sup>
- Create specific website landing pages for cybersecurity (similar to veteran services)

1) Downloadable C-ID draft Descriptors for cybersecurity: <https://drive.google.com/drive/folders/17r0lcbOJB9fzRbwQQ0EebVCmMe8mlm8y>; 2) <https://www.infragardsd.org/>

# Recommendations (K-12)

- Establish agreements for early college credit/dual enrollment
- Available Curriculum:
  - CETAP curriculum<sup>(1)</sup>
  - National Institute for Cyber Education (NICE) Framework<sup>(2)</sup>
- Encourage student participation (outside of class):
  - Promote cyber camps<sup>(3)</sup>
  - Hackathons (especially those on community college campus)<sup>(4)</sup>
  - Careers in ICT/DM zoom conferences (*flyer @ end of this presentation*)

# Other Resources

- Learn & share best practices for educators
  - Weekly sector webinars: <https://ictdmsector.org/educator-webinars/>
  - San Diego Educator Advisory (2x/year): <https://www.freelists.org/list/sd4c>
  - SD/Imperial K14 Discussion Forums (3x/year): *(flyer @ end of this presentation)*
- Professional Development
  - <https://www.wastc.org/> has highly subsidized training
  - <https://codinglist.com/>
  - YouTube
  - CompTIA Instructor Network (CIN) “Train the Trainer” - <https://ictdmsector.org/educator-webinars>
  - LinkedIn Learning: <https://www.linkedin.com/learning-login>
- To participate in cyber curriculum sharing effort contact Steve Linthicum: <https://www.linkedin.com/in/slinthicum/>, (760) 517-6516, Email(s): [linthicum\\_steve@sac.edu](mailto:linthicum_steve@sac.edu)

# ICT & DIGITAL MEDIA SECTOR ACTIVITIES

The San Diego & Imperial Counties Community Colleges invite you to a series of VIRTUAL K-14 Educator and Student sessions highlighting the different careers in Information Communication Technologies (ICT) & Digital Media (DM) in San Diego and Imperial Counties!

 REGISTER TODAY! 

 Educator Discussion Forums, click [HERE](#)

 Careers in ICT & DM, click [HERE](#)

## FALL 2020

### K-14 Educator Discussion Forum

- Friday, November 20 ~ 2:00 - 3:00 p.m.
- Friday, December 18 ~ 2:00 - 3:00 p.m.



**Indicates event is for Students, Parents and Educators via Zoom Webinar**

Questions? Contact Monica Rosas, K-14 Career Education Professional Development Coordinator at [monica.rosas@gcccd.edu](mailto:monica.rosas@gcccd.edu)

## SPRING 2021



### Careers in ICT and Digital Media

Friday, January 22 ~ 2:00 - 3:00 p.m.

### K-14 Educator Discussion Forum

Friday, February 19 ~ 2:00 - 3:00 p.m.



### Careers in ICT and Digital Media

Friday, March 19 ~ 2:00 - 3:00 p.m.

### K-14 Educator Discussion Forum

Friday, April 23 ~ 2:00 - 3:00 p.m.



### Careers in ICT and Digital Media

Friday, May 21 ~ 2:00 - 3:00 p.m.

**COMMUNITY COLLEGES**

SAN DIEGO & IMPERIAL COUNTIES

**CAREER EDUCATION**



# ICT & DM DISCUSSION FORUM SURVEY

## ICT & Digital Media Sector Discussion Forum

### Discussion Forum Content

The below questions will help us address your current distance learning needs as well as provide resources for future virtual and in-person learning methods.

For future discussion forums, what topic (s) interest you (i.e. Business Software Applications, IT Network/Cyber-security, Computer Science/Software Development, Digital Media/Entertainment, etc.)?

- Business Software Applications: Business Communication & Computer Literacy; MS Office; Excel Pivot Tables; Google Docs, etc.

**COMMUNITY COLLEGES**

SAN DIEGO & IMPERIAL COUNTIES

**CAREER EDUCATION**

# Happy Holidays!

Duane Rinehart, MBA  
Regional Director, Industry Engagement -  
San Diego and Imperial Counties  
Information Communication Technologies (ICT)  
and Digital Media (DM)  
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     /mycareered



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