2018 IEDRC USA CONFERENCES ABSTRACT

September 08-10, 2018 College of Charleston, Charleston, South Carolina, USA

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Welcome Remarks

On behalf of IEDRC, we welcome you to College of Charleston, Charleston, South Carolina, USA to attend 2018 International Conference on Computing and Big Data (ICCBD 2018) and 2018 7th International Conference on Knowledge, Culture and Society (ICKCS 2018). We're confident that over the three days you'll get theoretical grounding, practical knowledge, and personal contacts that will help you build long-term, profitable and sustainable communication among researchers and practitioners working in a wide variety of scientific areas with a common interest in Computing, Big Data, Knowledge, Culture and Society.

The conferences received submissions from more than 10 different countries and regions, which were reviewed by international experts, and about 60% papers have been selected for presentation and publication.

We hope that your work and that of your institution or company will be enhanced both by what you learn and by those with whom you connect over the next 3 days. Our field is enriched by the dialogue among colleagues from around the world which occurs during presentation sessions as well as informal conversations. We hope this is a memorable, valuable, and enjoyable experience!

On behalf of conference chair and all the conference committee, we would like to thank all the authors as well as the Program Committee members and reviewers. Their high competence, their enthusiasm, their time and expertise knowledge, enabled us to prepare the high-quality final program and helped to make the conference a successful event. We hope that all participants and other interested readers benefit scientifically from the proceedings and also find it stimulating in this process. Finally, we would like to wish you success in your technical presentations and social networking.

Once again, thanks for coming to this conference. We are delegate to higher and better international conference experiences. We will sincerely listen to any suggestion and comment; we are looking forward to meeting you next time.



Conference Venue

College of Charleston

Address: 66 George Street, Charleston, Sc 29424 USA

The conference room is in Take Center, 5 Liberty Street



About the College

A Superior Public University with Personality to Spare

Located in the heart of historic Charleston, South Carolina, the College of Charleston is a nationally recognized public liberal arts and sciences university. Founded in 1770, the College is among the nation's top universities for quality education, student life and affordability. Its beautiful and historic campus, combined with contemporary facilities, cutting-edge programs and accessible faculty attracts students from across the U.S. and around the world.

Over 10,000 undergraduates and approximately 1,000 graduate students at the College enjoy a small-college feel blended with the advantages and diversity of a mid-sized, urban university. They work closely with a committed faculty, made up of more than 500 distinguished teacher-scholars. And the city of Charleston – world-renowned for its history, architecture, culture and coastal environment – serves as a living and learning laboratory for experiences in business, science, technology, teaching, the humanities, languages and the arts.

Instructions for On-Site Registration

- 1) Please print your registration form before you come to the conference.
- 2) You can also register at any time during the conference.
- 3) Certificate of Participation can be collected at the registration counter.
- 4) Your paper ID will be required for the registration.
- 5) The organizer won't provide accommodation, and we suggest you make an early reservation.

Instructions for Oral Presentations

Devices Provided by the Conference Organizer:

Laptops (with MS-Office & Adobe Reader)

Projectors & Screens

Laser Sticks

Materials Provided by the Presenters:

Power Point or PDF Files (Files should be copied to the conference laptop at the beginning of each session)

Duration of each Presentation (Tentatively):

Regular Oral Presentation: 15 Minutes of Presentation, including Q&A

Keynote Speech: 40 Minutes of Presentation, including Q&A

Instructions for Poster Presentation

Materials Provided by the Conference Organizer:

The place to put poster

Materials Provided by the Presenters:

Home-made Posters

Maximum poster size is A1

Load Capacity: Holds up to 0.5 kg

Best Presentation Award

One Best Oral Presentation will be selected from each presentation session, and the Certificate for Best Oral Presentation will be awarded at the end of each session September 09, 2018.

Dress Code

Please wear formal clothes or national representative clothing.

Important Note:

The time slots assigned in the schedule are only tentative. Presenters are recommended to stay for the whole session in case of any absence.

Introductions for Publications

All accepted papers for the USA conferences will be published in the journal and proceeding below.

2018 International Conference on Computing and Big Data (ICCBD 2018)



All accepted papers by ICCBD 2018 will be published in the International Conference Proceedings Series by ACM, which will be archived in the ACM Digital Library, and sent to be indexed by EI Compendex and Scopus and submitted to be reviewed by Thomson Reuters Conference Proceedings Citation Index (ISI Web of Science).

ISBN: 978-1-4503-6540-6

2018 7th International Conference on Knowledge, Culture and Society (ICKCS 2018)



International Journal of Culture and History (IJCH)

ISSN: 2382-6177 DOI: 10.18178/ijch

Indexed By: Google Scholar, Crossref



International Journal of Knowledge Engineering (IJKE)

ISSN: 2382-6185 DOI: 10.18178/IJKE

Indexed By: Google Scholar, Crossref, ProQuest

Introductions for Keynote Speakers



Prof. Jin Wang Valdosta State University, USA

Jin Wang is a Professor of Operations Research in the Department of Mathematics at Valdosta State University, USA. He received his Ph.D. degree from the School of Industrial Engineering at Purdue University in 1994. His research interests include Operations Research, Stochastic Modeling and Optimization, Supply Chain Management, Monte Carlo Simulation, Computational Finance, Portfolio Management, and Applied Probability and Statistics. Currently, he is working on Big Data and Data Mining fields. He has more than 28 years collegiate teaching experience in the field of quantitative methods and statistics at Purdue University, Florida State University, Auburn University, and Valdosta State University. Dr. Wang has been active in professional research activities. He has authored articles for publication in referred journals and conference proceedings. He has been active in INFORMS, IIE, and the Winter Simulation Conference and invited to give presentations, organize and chair sessions at national meetings. He has participated as a principal investigator in several research projects funded by federal and industrial agencies, including the National Science Foundation, General Motors, and the National Science Foundation of P.R. China. He was invited as a panel member at the National Science Foundation Workshop. Dr. Wang also served as a consultant for financial firms. His analytical Monte Carlo method using a multivariate mixture of normal distributions to simulate market data has made a great impact in education and the finance industry. This algorithm was selected as a graduate-level research project topic for many schools, such as, Columbia University Management Department, Carnegie Mellon University Economics and Finance Department, Tilburg University in Holland, Technische Universitaet Munich in Germany, Imperial College in London. This method was also implemented in many financial companies, such as, Zurcher Kantonal Bank, IRQ, Zurich Switzerland, Klosbachstrasse, Zurcher, Switzerland, Norsk Regnesentral in Norway, Cutler Group, L.P., Altis Partners (Jersey) Limited, Windham Capital Management, LLC.

Speech Title: Applied Linear Algebra Methods for Big Data Mining

Abstract: One of challenges in the big data era is how to best summarize, display, and analyze the big data efficiently. Data representation refers to the choice of a mathematical structure with which to model the data. In the big data context, a key goal in data representation is that of reducing computation. In addition to reducing computation time, proper data representations can also reduce the amount of required storage. Dimensionality reduction refers to a broad class of methods that re-express the data, in terms of a small number of actual data points. In this talk, we will discuss some efficient algorithms for big data Mining based on applied linear algebra. Possible applications include PageRank, Spectral Clustering, Optimization, and Principal Component Analysis.



Prof. Gary E. Swanson Dimage Studios LLC Ellwood City, USA

Gary E. Swanson is an internationally recognized and highly acclaimed educator, photojournalist, documentary and news producer, director, editor, speaker and consultant. He has given numerous keynote speeches, served as organizer and chair at conferences, presented workshops and lectured at embassies, festivals, and universities throughout China, South Africa, India, Sri Lanka, Papua New Guinea, Japan, Korea, The Philippines, Thailand, Cambodia, Malaysia, Vietnam, Laos, Indonesia, Singapore, Greece, Italy, Germany, Jordan, Spain, Portugal, Peru, the United Kingdom, British Columbia, and the United States.

Professor Swanson is a three-time Fulbright Scholar to Portugal and the People's Republic of China. From 2007-2015 Swanson was the Mildred S. Hansen Endowed Chair and Distinguished Journalist-in-Residence at the University of Northern Colorado, USA. Previously, Swanson was Professor and Director of Television for nine years at the Medill School of Journalism at Northwestern University. He has also taught at DePauw University in Indiana and at Elon University in North Carolina. In 1992 Swanson covered the Olympics in Barcelona, Spain for NBC News, and in 2008 was commentator for China Central Television International (CCTV-9) and their live coverage of the Beijing Olympic Games. Professor Swanson continued his on-air work with CCTV-4 as distinguished live guest and commentator in London the summer of 2012.

Swanson has earned more than 76 awards for broadcast excellence and photojournalism including three national EMMY's, the duPont Columbia Award, two CINE "Golden Eagles," 16 TELLY's, the Monte Carlo International Award, the Hamburg International Media Festival's Globe Award, the 2011 Communitas Outstanding Professor and Educator award, the 2012 Professor of the Year Award, the 2016 Distinguished Alumni Award in Education from the University of Illinois, and many others. His photography has won numerous awards and his works have been published in magazines, books, and displayed in art galleries worldwide.

Speech Title: The Past, Present and Possible Future of Journalism

Abstract: Throughout time we have seen moments in American history when the press has been revered and honored in this country, and moments when its reputation has suffered. We have seen great and noble work by journalists here and around the world, and we have seen embarrassing mistakes and lapses of judgment.

As major American news outlets continue to downsize or reduce the number of foreign bureaus in existence, alternative news sources have become more prominent in the realm of international coverage. And traditional news outlets struggle with verifying the potentially biased or false information and making stories relevant for their audience.

Where is the future of journalism headed?



Prof. Wenbing Zhao Cleveland State University, USA

Wenbing Zhao received his Ph.D. in Electrical and Computer Engineering at University of California, Santa Barbara, in 2002. Dr. Zhao has a Bachelor of Science degree in Physics in 1990, and a Master of Science degree in Physics in 1993, both at Peking University, Beijing, China. Dr. Zhao also received a Master of Science degree in Electrical and Computer Engineering in 1998 at University of California, Santa Barbara. Dr. Zhao joined Cleveland State University (CSU) faculty in 2004 and is currently a Professor in the Department of Electrical Engineering and Computer Science (EECS) at CSU. He is currently serving as the director of the Master of Science in Electrical Engineering, and the Chair of the Graduate Program Committee in the Department of EECS, and a member of the faculty senate at CSU. Dr. Zhao has authored a research monograph titled: "Building Dependable Distributed Systems" published by Scrivener Publishing, an imprint of John Wiley and Sons. Furthermore, Dr. Zhao published over 120 peer-reviewed papers in the area of fault tolerant and dependable systems (three of them won the best paper award), computer vision and motion analysis, physics, and education. Dr. Zhao's research is supported in part by the US National Science Foundation, the US Department of Transportation, Ohio State Bureau of Workers' Compensation, and by Cleveland State University. Dr. Zhao is currently serving on the organizing committee and the technical program committee for numerous international conferences, and is a member of editorial board for PeerJ Computer Science, International Journal of Parallel Emergent and Distributed Systems, International Journal of Distributed Systems and Technologies, International Journal of Performability Engineering, International Journal of Web Science, and several international journals of the International Academy, Research, and Industry Association. Dr. Zhao is a senior member of IEEE. Dr. Zhao is also a senior member of International Economics Development and Research Center (IEDRC).

Speech Title: Reducing Lower-Back Injuries with a Privacy-Aware Compliance Tracking System

Abstract: Lost productivity from lower back injuries in workplaces costs over \$100 billion per year in the United States alone. A main cause for such workplace injuries is that workers often do not follow best practices. In this talk, Dr. Zhao will present the design, implementation, and evaluation of a novel computer-vision-based system that aims to increase the workers' compliance to best practices in using proper body mechanics. The system consists of inexpensive programmable depth sensors, smartwatches, and smartphones. The system is designed to track the activities of consented workers using the depth sensors, alert them discreetly on detection of noncompliant activities, and produce cumulative reports on their performance. The initial evaluation of the system at a nursing home exposed a number of issues with the system design, especially on the usability of the system. This talk will also present a new user authentication mechanism that can register a consented user automatically, thereby eliminating the interruption of the user's work flow, and drastically improving the system usability.



Assoc. Prof. Chen-Huei Chou College of Charleston, USA

Chen-Huei Chou received the B.S. in Information and Computer Engineering from Chung Yuan Christian University, Taiwan, the M.S. in Computer Science and Information Engineering from National Cheng Kung University, Taiwan, the M.B.A. from the University of Illinois at Chicago, Chicago, Illinois, USA, and the Ph.D. in Management Information Systems from the University of Wisconsin-Milwaukee, Wisconsin, USA. He is an Associate Professor of Information Management and Decision Sciences in the School of Business at the College of Charleston, SC, U.S.A. His research has been published in MIS journals and major conference proceedings, including MIS Quarterly, Journal of Association for Information Systems, Decision Support Systems, IEEE Transactions on Systems, Man, and Cybernetics, Computers in Human Behavior, Internet Research, and Journal of Information Systems and e-Business Management. His areas of interests include web design issues in disaster management, ontology development, Internet abuse in the workplace, text mining, data mining, knowledge management, and behavioral studies related to the use of IT.

Speech Title: Artificial Intelligence on Internet Abuse Detection"

Abstract: As the use of the Internet in organizations continues to grow, so does Internet abuse in the workplace. Internet abuse activities by employees—such as online chatting, gaming, investing, shopping, illegal downloading, pornography, and cybersex—and online crimes are inflicting severe costs to organizations in terms of productivity losses, resource wasting, security risks, and legal liabilities. Organizations have started to fight back via Internet usage policies, management training, and monitoring. Internet filtering software products are finding an increasing number of adoptions in organizations. These products mainly rely on blacklists, whitelists, and keyword/profile matching. In this talk, I would like to share an artificial intelligence approach to Internet abuse detection. I have empirically compared a variety of term weighting, feature selection, and classification techniques for Internet abuse detection in the workplace of software programmers. The experimental results are very promising; they demonstrate that the text mining approach would effectively complement the existing Internet filtering techniques. In this speech, I would like to share my knowledge and experience in conducting text mining approach for detecting Internet abuse in the workplace.

Conference Time Schedule

Day 1(September 08): Registration Only

1st floor of Beatty Center School of Business	10:00-17:00	Registration & Conference materials collection
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Day 2(September 09): Conference

Day 2(September 09): Conference				
		09:00-09:05		Opening Remarks Assoc. Prof. Chen-Huei Chou College of Charleston, USA
			09:05-09:45	
		09:45-10:00		Coffee Break & Photo Session
T130 (Located in Tate Center, School of Business)	09:00-12:00	10:00-10:40		Keynote Speech 2 Prof. Gary E. Swanson Dimage Studios LLC Ellwood City, USA Speech Title: The Past, Present and Possible Future of Journalism
		10:40-11:20		Keynote Speech 3 Prof. Wenbing Zhao Cleveland State University, USA Speech Title: Reducing Lower-Back Injuries with a Privacy-Aware Compliance Tracking System
		11: 20-12:00		Keynote Speech 4 Assoc. Prof. Chen-Huei Chou College of Charleston, USA Speech Title: Artificial Intelligence on Internet Abuse Detection"
	12:00-13:00	Lunch (Liberty St. Fresh Food Company)		

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T130	13:00-14:30	Session 1 Theme: Data Science and Big Data Technology Session Chair: Prof. Jin Wang
T130	14:30-16:15	Session 2 Theme: Computer Science and Applications Session Chair: Prof. Wenbing Zhao
	16:15-16:30	Coffee Break
T130	16:30-18:30	Session 3 Theme: Social Science and Management Session Chair: Prof. Gary E. Swanson
	18:30-20:00	Dinner(Liberty St. Fresh Food Company)

Authors' Presentations Review

15-16

BD012: Less is More: With a 280-character limit, Twitter Provides a Valuable Source for Detecting Self-reported Flu Cases

Sultanah M. Alshammari and Rodney D. Nielsen

Session 1: Data Science and Big Data Technology

BD015: Twitter Query Expansion via Word2Vec-Urban Dictionary Model *Jason Turner* and Mehmed Kantardzic

BD016: 3D Parallel Coordinates for Multidimensional Data Cube Exploration *Safaa Alwajidi* and Li Yang

BD017: Content-Based Textual Big Data Analysis and Compression Fei Gao, Ananya Dutta and *Jiangjiang Liu*

BD104: Cricket World Cup Predictions using KNN intelligent Bigdata approach *Abdurazzag A Aburas*, Muhammed Mehtab and Yusuf Mehtab

BD301-A: EU's General Data Protection Requirement (GDPR) and You Kevin KEATING and Gerard Klonarides

Session 2: Computer Science and Applications

17-19

BD007: Stable Stock Market Prediction Using NARX Algorithm Enas Alkhoshi

BD302: An Overview of the Julia Programming Language
Tyler A Cabutto, Sean P Heeney, Shaun V Ault, *Guifen Mao* and Jin Wang

BD035: DzGAN: Improved Conditional Generative Adversarial Nets Using Divided z-vector *Hideki Tsunashima*, Taisei Hoshi and Qiu Chen

BD045: A Ubiquitous Approach for Automated Library Book Location Management *Hanh Pham*, Anthony Giordano and Lee Miller

BD018: Performance Analysis Using A-priori Algorithm Along with Spark and Python Fei Gao, Chandrima Bhowmick and *Jiangjiang Liu*

BD104: Sarcasm Detection on Flickr Using a CNN *Dipto Das* and Anthony J. Clark

BD201: Design and Implementation of PN Code Generator for Frequency Hopping System *Yasir K. Ibrahim* and Haitham Kareem Ali

Session 3: Social Science and Management

20-23

BD025-A: Interactive Visualization and Short-Term Forecasting for Criminal Data *Muhammad Ahsan Nawaz and Anosh Abbas*

BD038: A Systematic Review on Social Network Analysis – Tools, Algorithms and Frameworks *Wajeeha Aslam,* Wasi Haider Butt and Muhammad Waseem Anwar

 $KC0004: Significance \ and \ Relevance \ of \ The \ Leadership \ Qualities, \ Ideals \ and \ Values \ of \ Mahatma \ Gandhi, in Sustaining \ Successful \ Businesses \ In \ Today'S \ World$

Swaroop Simha

KC0005: A Comprehensive Model of Accountability-Legitimacy Transactional Relationships: A Literature Review and Future Research Agenda

Yoshinobu Nakanishi

2018 IEDRC USA CONFERENCES

KC0014-A: Does Social Service Result in Spiritual Growth? *Jayant Balaji Athavale*, Bhavna Shinde, and Sean Clarke

KC1015: The Instrumental Functions of Cultural Studies and Policies in Contemporary Nigerian Society *Emmanuel Orok Duke*

BD037: Examining University Ranking Metrics: Articulating Issues of Size and Web Dependency *Izzat Alsmadi and Z.W. Taylor*

KC1017: Configuration of Power and Narratives: Who Receives the Label of Being a Terrorist? *Matthew J. Ahlfs* and Robert Benford

Authors' Presentations (September 09, 2018)

Session 1

Time: 13:00-14:30 Venue: T130
Theme: Data Science and Big Data Technology
Session Chair: Prof. Jin Wang
Affiliation: Valdosta State University, USA

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ID	Title+ Author's Name
BD012 13:00-13:15	Less is More: With a 280-character limit, Twitter Provides a Valuable Source for Detecting Self-reported Flu Cases Sultanah M. Alshammari and Rodney D. Nielsen University of North Texas, USA Abstract: People in social media post massive amounts of different types of data including text messages, photos, and links. They share their personal opinions, feelings, and even their health status. The high volume of health-related tweets can be used as a tool to track the activities of different infectious diseases. In this paper, we describe our work to process Twitter data to detect self-reported cases of the flu using supervised machine learning methods. The results obtained on a large set of tweets posted in English during the flu season prove that machine learning classifiers are effective in detecting possible self-reported flu cases.
BD015 13:15-13:30	Twitter Query Expansion via Word2Vec-Urban Dictionary Model Jason Turner and Mehmed Kantardzic Computer Science & Engineering University of Louisville Louisville, USA Abstract: Query expansion has been a field of interest within the field of information retrieval for quite sometime. We propose a novel approach for expanding queries on microblogs, using a word2vec-Urban Dictionary hybrid model built on a prior collection of documents, to expand the search set by addition additional slang terms. In our case we will focus on the social network site Twitter and tweets related to the topic of marijuana. The result of this approach indicated that we were able to collect several tweets that would not otherwise be collected. We also increased the average degree of the social network of contributors as the expanded list of terms also resulted in marijuana-related tweet contributors who would not have been collected as well.
BD016 13:30-13:45	3D Parallel Coordinates for Multidimensional Data Cube Exploration Safaa Alwajidi and Li Yang Western Michigan University, USA Abstract: Visual analytics becomes an important approach for discovering patterns in big data. As visualization struggles from high dimensionality of data, issues like concept hierarchy on each dimension add more difficulty and make visualization a prohibitive task. Data cube offers multi-perspective aggregated views of large data sets and has important applications in business and many other areas. It has high dimensionality, concept hierarchy, vast number of cells, and comes with special exploration operations such as roll-up, drill-down, slicing and dicing. All these issues make data cubes very difficult to visually explore. Most existing approaches visualize a data cube in 2D space and require preprocessing steps. In this paper, we propose a visualization technique for visual analytics of data cubes using parallel coordinates. The proposed technique extends parallel coordinates to a 3D space to reflect concept hierarchy, display cube cells intuitively, and support data cube operations visually and interactively.

Content-Based Textual Big Data Analysis and Compression Fei Gao, Ananya Dutta and **Jiangjiang Liu** Lamar University Beaumont Texas, USA

BD017 13:45-14:00 Abstract: With the growing enhancement of technology and the Internet, the number of people who are using the Internet is increasing daily. Users are engaged in web searching and accessing different types of websites, such as social media, banking, etc. As a result, a large volume of data is being generated in every day. It is necessary to load this data for analyzation purposes. However, memory space and transmission time are the most important factors of limited processing. In most cases, we only need to extract the important textual data from these vast raw datasets. In this work, we propose content-based compression (CBC) for textual data analysis on the basis of the Huffman Tree Algorithm. The data is pre-analyzed to find very high frequency words and then a shorter symbol is inserted to replace those words. This compression approach is performed in an effort to maintain the original format of the data so that, compressed data structure could be completely transparent to Hadoop platform. The algorithm is evaluated on a set of real world data sets (e.g. Amazon movie review, food review, etc.) and an 52.4% average data size reduction is obtained from the experiment. Though this gain may seem modest, this can be supplementary to all other compression optimization techniques. Furthermore, the proposed technique can be effectively applied for the big data optimization purpose.

Cricket World Cup Predictions using KNN intelligent Bigdata approach **Abdurazzag A Aburas**, Muhammed Mehtab and Yusuf Mehtab University of KwaZulu-Natal, South Africa

BD104 14:00-14:15 **Abstract:** In May 2019, the ICC 2019 Cricket World Cup is the 12th edition of the cricket World Cup and is scheduled to be hosted by England and Wales. This research work is trying to predict the winner of the 12th version of ICC world cup using intelligent KNN Bigdata approach. Our chosen machine learning namely the KNN (K Nearest Neighbor Algorithm) and data reduction algorithm will be presented. Additionally, the steps taken to achieve the KNN classifications as applied to all datasets in detail. KNN and R Language will be defined in depth. It will also be mentioned how and why they apply to this project. The selected datasets required cleaning and cleansing and it is done using MySQL to ensure that they are ready to have the KNN algorithm applied to them. Finally, the crux of this paper, the application of the KNN algorithm will be discussed in detail as they are applied to the datasets. This research work, the concepts of Bigdata will be used to predict the winner of the 2019 ICC Cricket World Cup.

EU's General Data Protection Requirement (GDPR) and You **Kevin KEATING and Gerard Klonarides**

Florida International University, USA

BD301-A 14:15-14:30 **Abstract:** This presentation and discussion reveals the conflicts, controversies and resolutions facing American data management and mining entities as we struggle to understand and comply with the new European GDPR. As data fields converge, enterprises that touch or transfer personally identifiable data must stay abreast of fast changing regulatory requirements. Has your data been reviewed for how it was acquired, the rationale for its storage, availability for transfer or recall, and cross-border flow considering GDPR?

Sorting out privacy rights in the digital economy is of critical importance as evidenced in legal and media responses to recent corporate scandals. GDPR challenges US initiatives in the areas of Big Data Management, Data Search and Mining, Applications, and Security/Privacy issues. Protecting the privacy rights of individuals under GDPR requires clarification of the relationship between data controllers, processors, and subjects. We too need to ask ourselves a series of fundamental questions – whose data is it, how much data should be collected, how long should it be stored, how will it be protected?

Session 2

Time: 14:30-16:15 Venue: T130
Theme: Computer Science and Applications
Session Chair: Prof. Wenbing Zhao
Affiliation: Cleveland State University, USA

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ID	Title+ Author's Name
BD007 14:30-14:45	Stable Stock Market Prediction Using NARX Algorithm Enas Alkhoshi Georgia State University, USA Abstract: Computational technologies have offered faster and efficient solutions to many diverse areas including the financial sector. In the financial market, the advancements in computational field have been mainly achieved through the use of neural networks and machine learning tools that delivered a number of financial applications. These applications include: stock market prediction, bankruptcy prediction, risk assessment etc. Thus, in this paper, we are developing a technique to predict the stock market index for the "Dow Jones" using deep learning algorithms. We propose a model based on an adaptive NARX neural network that can predict the closing price of a moderately stable market. In our model, non-linear auto regressive exogenous input model inserts delays into the input as well as the output acting as memory slots thereby raising the accuracy of the prediction. This model uses a time series analysis to improve the prediction accuracy. In addition, Levenberg-Marquardt algorithm has been used for training the network. The accuracy of the model is determined by the mean squared error between the predicted and the actual prices.
BD041 14:45-15:00	Feature-based Restaurant Customer Reviews Process Model using Data Mining Anish Kumar Varudharajulu and Yongsheng Ma University of Alberta, Canada Abstract: Mining social media is a new strategy to revitalize any business. The social media lodges colossal amount of user spawn data which can be used for data mining. The purpose of the research work is to develop a feature-based software model to analyze customer reviews of an organization using their Facebook page and provide valuable insights for decision making, product quality development, and process improvements. Thus enabling concurrent engineering activities and enhancing collaboration between various departments within the organization. As a sample case study, we have analyzed the customer reviews of a restaurant using the J48 classification algorithm and K-means clustering algorithm to identify areas which need improvement. Results show that customers are giving more importance to features like the taste, variety of drinks, price, and service, In addition, customers are least bothered about the location, offers, and ambiance of the restaurant under study.
BD035 15:00-15:15	DzGAN: Improved Conditional Generative Adversarial Nets Using Divided z-vector Hideki Tsunashima, Taisei Hoshi and Qiu Chen Kogakuin University, Japan Abstract: Conditional Generative Adversarial Nets [1](cGAN) was recently proposed as a novel conditional learning method by feeding some extra information into the network. In this paper we propose an improved conditional GANs which use divided z-vector (DzGAN). The computation amount will be reduced because DzGAN can implement conditional learning using not images but one-hot vector by dividing the range of z-vector (e.g1~1 to -1~0 and 0~1). In the DzGAN, the discriminator is fed by the images with label using one-hot vector and the generator is fed by divided z-vector (e.g. there are 10 classes In MNIST dataset, the divided z-vector will be z1~z10 accordingly) with corresponding label fed into the discriminator, thus we can implement conditional learning. In this paper we use conditional Deep Convolutional Generative Adversarial Networks (cDCGAN) [7] instead of cGAN because cDCGAN can generate clear image better than cGAN. Heuristic experiments of conditional learning which compare the computation amount demonstrate that DzGAN is superior than cDCGAN.

A Ubiquitous Approach for Automated Library Book Location Management **Hanh Pham**, Anthony Giordano and Lee Miller State University Of New York, USA

BD045 15:15-15:30 **Abstract:** In this paper, we propose a ubiquitous system called ABLM (Autonomous Book Location Management) for managing book locations in big libraries. This comprehensive system uses affordable devices such as Raspberry Pi with cameras to monitor book locations throughout a library. It can automatically detect book misplacements. It can also help users to locate a book in a library by visualizing its location on a map given the book ID. Our system ABLM includes a central software module running on a server which communicates via Wi-Fi Internet with monitor software modules running on Raspberry Pi and user software modules running on the library web pages or on the user smartphones. When a user makes a request to find the location of a book using the book ID the user software module processes it to define the book location and displays it on a dynamic library map. The user can then report the result to the central module via the user module if the book is found at the given location on the map or not. The central module on the server records that result into the system database. Our system also includes a camera attached to the Raspberry Pi which can be placed on wheeled robots moving around the shelves to detect wrong placements of books. When the library book placement policy is violated it is reported to the central module at the server via the user module or the monitor module. The central module can analyze the recorded data on book misplacements and recommend specific segments and areas of shelves to be resorted of fixed. The proposed system is affordable as the total cost of all needed hardware devices including Raspberry Pi, its cameras, and the wheeled robot is under 900 USD. Our system is also portable and universal as it can plug-in into any existing library system and can accommodate any changes in library floor plans including reconfigurations of bookshelves.

Performance Analysis Using A-priori Algorithm Along with Spark and Python Fei Gao, Chandrima Bhowmick and **Jiangjiang Liu**Lamar University Department of Computer Science, USA

BD018 15:30-15:45 Abstract: We have proposed an improved A-priori algorithm based on comparing different data structures to obtain a better and improved performance level than presently available approaches. Our approach is to apply on large transaction data where space and time management has been a center of attraction. The improved algorithm is using an existing A-priori approach and gives us a more time efficient output. Our approach is implemented on a spark framework along with the PySpark facility that can process data on a much-improved rate compared to the Hadoop framework. Moreover, we have proposed that using python as our programming language has a faster computational rate. We have used a local file system for our data to be stored. In addition, we have shown our time efficiency on spark framework and generated a report using those data to compare spark based analysis on our proposed algorithm. Furthermore, this proposed method can also be effectively applied for a big data mining optimization purpose.

Sarcasm Detection on Flickr Using a CNN **Dipto Das** and Anthony J. Clark Missouri State University, USA

BD105 15:45-16:00 **Abstract:** Sarcasm is an important aspect of human communication. However, it is often difficult to detect or understand this sentiment because the literal meaning conveyed in communication is opposite of the intended meaning. Though the field of sentiment analysis is well studied, sarcasm has often been ignored by the research community. So far, to detect sarcasm on social media, studies have largely focused upon textual features. However, visual cues are an important part of sarcasm. In this paper, we present a convolutional neural network based model for detecting sarcasm based on images shared on a popular social photo sharing site, Flickr.

Design and Implementation of PN Code Generator for Frequency Hopping System **Yasir K. Ibrahim** and Haitham Kareem Ali Mazaya University College, Iraq

BD201 16:00-16:15 Abstract: Spread spectrum systems can provide most of the unique requirements of military communication and are suited for secure communication and data transmission. The spread spectrum signal differs from other modulation formats both qualitatively. In this paper, a complete digital system (PN Code generator) of frequency hopping is designed to produce different periodic waveforms that have different frequencies. The proposed system has a number of stages of blocks, where each block consists of the following units: (i) sequential unit, (ii) control unit, and (iii) multiplexing unit. The system is divided into three divisions based on the control type. There three types of controls, these types are: (i) manual control, (ii) automatic control, and (ii) hybrid control, where for each control there is synchronization between the transmitting process and receiving process. The output wave forms of the proposed system provided to the frequency synthesizer that change the carrier frequency of the signal according to the output frequency of the system. The implementation and testing of the proposed system will be done, and its shows high performance in terms of accuracy with real data. The designed system is either a 8-channal system or 16-channal system, which can be extended by choosing another designed block.



Time: 16:15 – 16:30

Session 3

Time: 16:30-18:30 Venue: T130 Theme: Social Science and Management Session Chair: Prof. Gary E. Swanson

Affiliation: Dimage Studios LLC Ellwood City, USA

ID	Title+ Author's Name
	Interactive Visualization and Short-Term Forecasting for Criminal Data Muhammad Ahsan Nawaz and Anosh Abbas Rhine-Waal University of Applied Sciences, Germany; ESIEE Paris, France
BD025-A 16:30-16:45	Abstract: Nowadays law enforcement agencies are producing an enormous amount of crime data. Preventive measures are taken to reduce the number of offenses. This research presented the development of an interactive dashboard and the time-series model of Seasonal-ARIMA which is used to make a short-term forecast of monthly (violent and property) crimes for one city of the USA. With the given data of Philadelphia crimes for 130 months since January 2006, provided by the opendataphilly. The first goal of this research is to create a crime analysis dashboard for a spatial and temporal visualization of the analysis of crime. With this application, agencies & researchers can choose a period with the offense type and location to visualize the similar crimes. The second goal, after created the crime analysis dashboard, was to apply the time-series model of SARIMA with an accuracy of MAPE (3.2%) is determined and the crime amount of 24 months ahead is predicted. This work will be helpful for law enforcement agencies in decision making and crime suppression. Finally, an evaluation of the crime analysis dashboard is conducted on (15) participants with the
	non-cartographic background. The users have interacted with the application and filled an online survey to express their opinions. Also, forecasted values suggest that crimes in Philadelphia are on a downward trajectory.
	A Systematic Review on Social Network Analysis – Tools, Algorithms and Frameworks Wajeeha Aslam , Wasi Haider Butt and Muhammad Waseem Anwar National University of Sciences and Technology, Pakistan
BD038 16:45-17:00	Abstract: In the modern paradigm of IOT "Internet of Things" and big data, we deal with augmented volume of information on regular basis. Due to advancement in the data flow, there is a fair chance of data loss and its misuse. To manage this, it is usually required to draw whole information in form of graphs or presentable form which is termed as social network. In this context, to get some calculative idea about social relations from that network is called a Social Network Analysis (SNA). The research on SNA has been continuously performed from last decade or so. It is required to review and present major contributions in SNA to research community. Therefore, this article conduct a Systematic Literature Review (SLR) to select fifty research studies. As a result, twenty three algorithms, eleven tools and ten frameworks in the domain of SNA have been presented. This facilitates researchers to discovery latest SNA developments within a single study.
	Significance and Relevance of The Leadership Qualities, Ideals and Values of Mahatma Gandhi, in Sustaining Successful Businesses in Today'S World Swaroop Simha JSS CMS, JSS S&T, MYSURU
KC0004 17:00-17:15	Abstract: The word Mahatma refers to the great soul. It is an title that was accepted approved world over for an individual who was known for not just his simplicity, but a man who lived to leave behind a legacy of his ideals and values for mankind. The Man called Mahatma: Mohandas Karamchand Gandhi, commonly known as Mahatma Gandhi, was the preeminent leader of Indian nationalism in British-ruled India. Employing non-violent civil disobedience, Gandhi led India to independence and inspired movements for non-violence, civil

rights and freedom across the world. His thoughts on a wide ranging subjects extending from politics, to business, economics, and many areas ,besides his own life all have a great message and learning for humanity.

The objective: To study and understand the significance of Mahatma Gandhi's leadership qualities, ideals and values and its relevance to the field of Business Management in the 21st Century.

Design/methodology/approach –The Research paper will be based on qualitative research followed by a small scale survey across a cross section of Business management students, practitioners and academicians. The qualitative research will involve interviews and focus groups which will gather qualitative information about the "Gandhi" and his leadership.

Originality/value and Practical implications and Findings – The paper reports an empirical Research study,the information will also be very important for understanding the modern generation in India and a review of their values attitudes and lifestyles which can throw light on future courses of management and adoption of the same.

Conclusion: – Dr. Martin Luther King, Jr. said "Gandhi was inevitable. If humanity is to progress, Gandhi is inescapable... We may ignore him at our own risk."

Question is how can business community gain from his leadership values today?

A Comprehensive Model of Accountability-Legitimacy Transactional Relationships: A Literature Review and Future Research Agenda

Yoshinobu Nakanishi

Nagasaki University, Japan

KC0005 17:15-17:30 **Abstract:** Organizations respond to pressure from their outside audiences to restore their legitimacy for their survival when criticized for their misconduct. In this process, the organization in question, particularly in the case of public organizations, must be accountable for their legitimating measures, and render an account to their audiences. The audiences, as organizations, also need to maintain their legitimacy by rendering an account to their own audiences. These discussions lead to the notion that a focal organization and its outside audiences are embedded in a comprehensive system of relationships where they transact accounts and legitimacy, which in turn provides us with new insights into improving our understanding of legitimacy and accountability. Hence, this article, through a literature review and theoretical discussion, sets out a future research agenda for improved understanding of legitimacy and accountability, to bridge these two research streams.

Does Social Service Result in Spiritual Growth?

Jayant Balaji Athavale, Bhavna Shinde, Sean Clarke

Maharshi University of Spirituality, India

KC0014-A 17:30-17:45 Abstract: Many spiritual aspirants equate social service with Spirituality. Some social workers feel they are following Karmayoga (which is the Spiritual Path of Action). However, does performing social service result in spiritual growth? While guidance about the matter has been provided in ancient Sanskrit sacred Scriptures, the spiritual research team at MAV has uncovered further details in relation to this aspect through spiritual research. The spiritual purpose of life is to grow spiritually and complete one's destiny (also known as karma). Often, the severe hardships in peoples' lives are due to destined (karmic) events and by helping them one is merely delaying their destiny. For any spiritual path, to grow spiritually basically means to transcend identifying one's consciousness with the 5 senses, mind and intellect (lower-self) and instead merging into God's infinite consciousness within one (the Soul). If social service is carried out with the incorrect spiritual perspective, and for people who aren't spiritually deserving, then one may create further destiny (karma) and not follow Karmayoga in the true sense. Also, the risk for any social worker is getting emotionally involved in the service thus binding himself - to continue identifying with his lower-self. Both these factors, amongst many others, can create obstacles in spiritual growth. For those who want to make a difference in this world, the lure of social service is understandable. However, for those seeking the Divine, where the aim is merging into God's infinite consciousness, the path that Spiritual Masters (Saints) recommend is different and more subtle. MAV recommends 'Eight Steps of Spiritual Practice' for faster spiritual growth. If followed sincerely, any spiritual aspirant will be able to experience higher-levels of spiritual experiences compared to the limited worldly experiences of social work. Spiritual practice also alleviates suffering due to destiny.

The Instrumental Functions of Cultural Studies and Policies in Contemporary Nigerian Society **Emmanuel Orok Duke**

University of Calabar, Nigeria

Abstract: There is need to rehabilitate arts/humanities in the academic circles within the Nigerian context. This is because fields of studies which are not directly linked to the domain of technological sciences are alienated based on the claims that: they do not contribute to the growth of the society. The value of arts/humanities in the development of the society cannot be gainsaid. It is different from the contributions of science and technology. Thus, our thrust in this paper is to show that, where basic democratic institutions, such as: the executive, legislative, and judiciary are efficient, arts/humanities as fields of studies can be instrumental to the transformation of the society. Given that humankind's primary mode of existence is cultural, cultural studies and policies can be instrumental to the redirection of the society from what it is to what the stakeholders envision. This ability to redirect the course of the society indicates how the intellectual capital of cultural studies reshapes the political sphere of the society. Cultural Studies is characteristically interdisciplinary. Therefore, the policies that these studies generate will be beneficial to all branches of human endeavors. It is expedient, therefore, to x-ray the thoughts of Bourdieu, Certeau and Debray, who are trailblazers in cultural policies, in view of drawing their implications for contemporary Nigerian society. The theoretical framework for this research is symbolic interactionism proposed by Stryker and Denzin. This is because it enables the understanding of how cultural products are translated into policies that shape the future of the society. In this paper, we demonstrated that Cultural Studies is instrumental to the development cultural policies that take seriously the interests of the ethnic groups in multi-cultural Nigerian society and national identity. Through this work, we showed that in Nigeria where the ivory towers are not doing enough in cultural analysis and reproduction, scholars from civil society organizations should partner with the government towards promoting and implementing people-oriented cultural policies.

KC1015 17:45-18:00

Examining University Ranking Metrics: Articulating Issues of Size and Web Dependency

Izzat Alsmadi and Zachary Taylor

Texas A&M, San Antonio, Department of Computing and Cyber Security One University way, San Antonio

BD037 18:00-18:15 **Abstract:** Universities pay serious attention to a wide variety of rankings in comparison with other national or international universities. Such ranking is used for peer comparisons, funds' acquisition and distribution, hiring, recruiting, and more. Several organizations or websites evaluate and publish those rankings yearly. In this paper, we evaluated those ranking models. We showed influence of University size, and web presence as two major contributing factors. We noticed while most ranking metrics claim that such two factors have no significant impact on their overall ranking methods, we showed in this paper that such dependency is significant. We also proposed methods to normalize or equalize such influences and showed that such methods are feasible and hence should be adopted..

Configuration of Power and Narratives: Who Receives the Label of Being a Terrorist?

Matthew J. Ahlfs and Robert Benford

University of South Florida Tampa, USA

KC1017 18:15-18:30 **Abstract:** Precise images circulate throughout media and every day assumed concepts about certain "dangerous" and "violent" people who have the means to cause devastation among the populace. This specific group, or type of persons are characterized through bombardments of exact descriptions that we assume to be true about that group. This essay will concentrate on how continuously repeated images and simulations of "Muslim" people executing lethal acts of violence produces a precise generalization that is known and attached to their group. Arguing the same manner can't be reallocated or recognized among our own people when they execute equivalent acts of lethal violence on the populace. More specifically, this essay will intend to challenge the terrorism narrative on the power discourse that enables certain groups of people who earns the label (Muslim – outsiders) and other groups of people who don't (Our own – insiders) when equivalent acts of violence are committed on the populace by both groups. The guiding research question that will help explore the configuration of power and media's influence is; why and how exactly does the terrorist narrative manifest into our everyday assumed truths of reality?

Poster Session

	Traffic Volume Prediction on Busy Road Junctions Yubo Wang , Ningwei Xu, Kaiyu Wang, Xiangru Li and Lintao Mu Jilin University, China
BD102	Abstract: Traffic volume prediction has been a hot spot of the realm of data mining owing to its scientific nature and practical value. The prediction needs an integrated model of linear regression, SARIMA, random forest, KNN, GBDT and the method of weight fusion. This new prediction strategy solves the problem of big forecasting bias produced by a single model. The test result of real data demonstrates that this algorithm improves the accuracy of traffic volume prediction in complex crossings.
BD302	An Overview of the Julia Programming Language Tyler A Cabutto, Sean P Heeney, Shaun V Ault, Guifen Mao and Jin Wang Valdosta State University, USA Abstract: The paper reviews what the Julia programming language is and its staying power relative to other popular programming languages. The following focuses on two popular programming languages (Cprogramming and Python programming) to obtain a deeper understanding of what Julia derives from them, how Julia deviates from them, and what Julia leverages to be a more reasonable choice for performance.

September 09, 2018	
18:30-20:00	Dinner

Listeners' List

Listanan 1	Almutairi, Imtinan Abdulaziz A
Listener 1	Adelphi University, USA
Listener 2	Hector Velasquez Rodas
Listener 3	Lasha Archvadze
	Scientific Industrial Enterprise "Abrasol", Georgia
Listener 4	Cheema Muhammad Ahmad
	Yongin University, South Korea
Listener 5	Malachy Nanamdi Akorah
	International Centre for Family Advancement, Nigeria

Upcoming Conferences



ICOSH 2018

Dong A University Da Nang, Vietnam

December 05-07, 2018

2018 7th International Conference on Sociality and Humanities (ICOSH 2018) is the main annual research conference aimed at presenting current research being carried out. ICOSH 2018 will be held during **December 05-07, 2018 in Dong A University, Da Nang, Vietnam.** ICOSH 2018 is organized by IEDRC and co-organized by Dong A University, Vietnam, which aims to bring together researchers, scientists, engineers, and scholar students to exchange and share their experiences, new ideas, and research results about all aspects of sociality and humanities, and discuss the practical challenges encountered and the solutions adopted.

Publication



International Journal of Social Science and Humanity (IJSSH)

ISSN: 2010-3646 DOI: 10.18178/IJSSH

Abstracting/Indexing: Google Scholar, Engineering & Technology Digital Library, Crossref, Index

Copernicus, and ProQuest

Topics

Topics of interest for submission include, but are not limited to:

Information and Communication Systems
Innovation, Technology and Society
Knowledge Management and Knowledge Economy
Land-Use Modeling Techniques and Applications
Law and Justice
Mathematical Modeling in Social Science

Organizational Decision Making
Physics Methods for Analyzing Social Complexity
Policy/Public Administration/Public Health
Political Science and Decision Making
Politics, society, and international relations
Population and Development

Submission Methods

1. Email: <u>icosh@iedrc.org</u>

2. Electronic Submission System: https://cmt3.research.microsoft.com/ICOSH2018

Important Dates

Submission Deadline	October 10, 2018
Acceptance Notification	October 30, 2018
Registration Deadline	November 20, 2018
Conference Date	December 05-07, 2018



The 2019 International Conference on Blockchain Technology (ICBCT 2019) will be held in Honolulu, Hawaii, USA during March 15-18, 2019.

Recognizing the importance of Blockchain and related technologies, the International Economics Development and Research Center held a conference to foster the development of an initiative. During one day event, representatives from academia, industry, government, and IEDRC volunteers and staff gathered to define that initiative. As several subject matter experts discuss the status of the technology, attendees give their own perspectives, and attendees share their research results. This diverse group of experts will generate more than great ideas; they will define the work that must be done for Blockchain to reach its potential, and will focus the energy to accomplish it.

Publication

The accepted papers by ICBCT 2019 will be published in international conference proceedings, which will be indexed by EI Compendex and Scopus

Topics

Topics of interest for submission include, but are not limited to:

Big Data and blockchain technology Consensus protocols for blockchains New applications using or built on top of blockchains Real-world measurements and metrics Usability and user studies Economics and game theory of mining Use of blockchain in distributed simulation Attacks on blockchain based systems
Blockchain and mobile systems
Blockchain and trust managements
Attacks on blockchain based systems
Cloud Services and Service Innovation
Use of blockchain in distributed simulation
Use of cryptocurrencies in public volunteer computing

Submission Methods

- 1. Email: icbct@iedrc.net
- 2. Electronic Submission System: https://easychair.org/conferences/?conf=icbct2019

Important Dates

Submission Deadline	November 20, 2018
Acceptance Notification	December 10, 2018
Registration Deadline	December 30, 2018
Conference Date	March 15-18, 2019



2019 International Conference on Big Data and Education (ICBDE 2019) will be held in University of Greenwich, London, UK during 27-29 March, 2019.

Big Data is the ocean of information we swim in every day-vast zetabytes of data flowing from our computers, mobile devices, and machine sensors. With the right solutions, organizations can dive into all that data and gain valuable insights that were previously unimaginable. Discover how Big Data technologies and analysis tools can transform your business today.

Publication

All the accepted papers by ICBDE 2019 will be published in international conference proceedings, which will be indexed by EI Compendex and Scopus

Topics

Topics of interest for submission include, but are not limited to:

Novel Theoretical Models for Big Data
New Computational Models for Big Data
Data and Information Quality for Big Data
New Data Standards
Big Data as a Service
Big Data Industry Standards
Experiences with Big Data Project Deployments
Novel Theoretical Models for Big Data
Cloud/Grid/Stream Computing for Big Data
High Performance/Parallel Computing Platforms for
Big Data

Energy-efficient Computing for Big Data
Big Data Open Platforms
Threat Detection using Big Data Analytics
Privacy Threats of Big Data
Privacy Preserving Big Data Collection/Analytics
HCI Challenges for Big Data Security & Privacy
User Studies for any of the above
Sociological Aspects of Big Data Privacy
Trust management in IoT and other Big Data System

Submission Methods

- 1. Email: icbde@iedrc.net
- 2. Electronic Submission System: http://www.easychair.org/conferences/?conf=icbde2018

Important Dates

Submission Deadline	November 30, 2018
Acceptance Notification	December 20, 2018
Registration Deadline	10 January, 2019
Conference Date	March 27-29, 2019



2019 8th International Conference on Language, Medias and Culture

2019 8th International Conference on Language, Medias and Culture (ICLMC 2019), which will be held during April 10-12, 2019, in Osaka, Japan

Publication

Management of the property of

International Journal of Languages, Literature and Linguistics (IJLLL)

ISSN: 2382-6282 DOI: 10.18178/IJLLL

Indexed by: Google Scholar, Crossref, Proquest



International Journal of Culture and History (IJCH)

ISSN: 2382-6177 DOI: 10.18178/ijch

Indexed By: Google Scholar, Crossref

Topics

Topics of interest for submission include, but are not limited to:

Practices of Language Teacher Education The transformative nature of the role of language and communication in human cognition Input and output of large character sets of Asian languages

Asian character encoding and compression

Multimodal representations and processing Voice input and output Phonology and morphology Lexical semantics and word sense Grammars, syntax, semantics and discourse

Submission Methods

1. Email: iclmc@iedrc.org

2. Electronic Submission System: http://confsys.iconf.org/submission/iclmc2019

Important Dates

Submission Deadline	Dec. 15, 2018
Acceptance Notification	Jan. 05, 2019
Registration Deadline	Jan. 25, 2019
Conference Date	April 10-12, 2019

www.iclmc.org

Note

2018 IEDRC USA CONFERENCES

Note