LIST OF PUBLICATIONS of Dr. Vinod Kumar R. S

I. RESEARCH PUBLICATIONS

A. International Journals

i. Reshma V. K., **Vinod Kumar R. S.,** Shahi D., Shyjith M B, "Chicken-Moth Search Optimization-Based Deep Convolutional Neural Network for Image Steganography" Scalable Computing: Practice and Experience, ISSN 1895-1767,Vol 21, Issue 2, pp. 217–232, DOI 10.12694:/scpe.v21i2.1664 (SCOPUS)

ii. Reshma, V. K., **Vinod Kumar, R. S.,** Shahi, D., Shyjith M.B, "Optimized Support Vector Neural Network and Contourlet Transform for Image Steganography" Evolutionary Intelligence (2020), Springer Link Search: https://doi.org/10.1007/s12065-020-00387-8 (SCOPUS)

iii. Reshma V. K., **Vinod Kumar R. S.,** "Pixel Prediction-Based Image Steganography by Support Vector Neural Network", The Computer Journal:Oxford University Press, doi: 10.1093/comjnl/bxaa017 (Science Citation Index) Published Online.

iv. Kuruvilla John, **Vinod Kumar. R. S**., Kumar S. S., "Low Power Pulsed Flip-Flop with Clock Gating and Conditional Pulse Enhancement", International Journal of Automation and Control. (Accepted). (SCIe)

v. Shanila N., **Vinod Kumar. R. S**., Ramya Ravi. R., "Segmentation of Liver Computed Tomography Images using Dictionary based Snakes", International Journal of Biomedical Engineering and Technology (Accepted). (SCIe).

vi. Shanila N., **Vinod Kumar. R. S**., Ramya Ravi. R., 'Performance Analysis of Preprocessing Filters Using CT Images for Liver Lesion Diagnosis, International Journal of Biomedical Engineering and Technology (Accepted). (SCIe).

vii. Shanila N., and **Vinod Kumar. R. S.,** "Performance Evaluation of Various Active Contour Models for Liver Boundary Detection in Abdomen Computed Tomography Images", Journal of Critical Reviews. Vol 7, Issue 3, pp. 143-147, 2020, DOI: 10.31838/jcr.07.03.27 (SCOPUS).

viii. Shanila N., **Vinod Kumar. R. S.,** and Abin. N. A., "Feature Extraction and Performance Evaluation of Classification algorithms for Liver Tumor Diagnosis of Abdominal Computed Tomography Images", Journal of Advanced Research in Dynamical and

Control System, Vol. 12, Issue 3, pp. 82-90, DOI: 10.5373/JARDCS/V12I3/20201169 (SCOPUS)

ix.   Shahi.D., and **Vinod Kumar. R. S** "Reversible Steganography for RGB Images Using Image Interpolation",   Journal of Advanced Research in Dynamical and Control System Vol. 12, issue 3, pp. 41-49, DOI: 10.5373/JARDCS/V12I3/20201165 (SCOPUS)

x.   Shanila N., **Vinod Kumar. R. S**., and Ramya Ravi. R., 'A survey on Methodology based Medical Image segmentation Techniques and their Applications, Journal of Advanced Research in Dynamical and Control System, Vol. 11, 09- Special Issue, pp. 612-622, 2019. (SCOPUS)- *DOI*: 10.5373/JARDCS/*V11*/20192613.

xi.   Kuruvilla John, **Vinod Kumar. R. S**., Kumar S. S., 'Design of Conditional Pulse Enhancement Flip-Flop Embedded with Clock Gating and Signal Feed-through Mechanism', Journal of Engineering Science and Technology, Vol. 14, No. 4, pp. 2000-2012, August 2019. (SCOPUS)

xii.   Kuruvilla John, **Vinod Kumar. R. S**., Kumar S. S., 'Effect of Clock Gating in Conditional Pulse Enhancement Flip-Flop for Low Power Applications', Indonesian Journal of Electrical Engineering and Informatics, Vol. 7, No. 2, pp. 357-365, June 2019 (SCOPUS)- *DOI*: 10.11591/ijeei.v7i2.1041.

xiii.   Kuruvilla John, **Vinod Kumar. R. S**., Kumar S. ' A Novel Design of Synchronous Counter for Low Power and High Speed Applications', International Journal of Engineering and Advanced Technology, Vol. 8, No. 4, pp. 779-783, April 2019. (SCOPUS)

xiv.   Ramya Ravi, R., **Vinod Kumar. R. S**., N. Shanila, "Segmentation of Melanoma using Triclass Thresholding in Dermoscopic Images", Journal of Advanced Research in Dynamical and Control System, Vol. 11, 06-Special issue, 2019, pp. 1603-1609, Aug. 2019 (SCOPUS)

xv.   Ramya Ravi. R., **Vinod Kumar. R. S**., and Shanila N., 'Artifacts Removal in Melanoma Using Various Pre-processing Filters', International Journal of Engineering & Technology (UAE). Vol. 7, No. 3.27, pp. 104-107, 2018. (SCOPUS)- *DOI*:10.14419/ijet.v7i3.27.17664.

xvi.   Kuruvilla John, **Vinod Kumar. R. S**. & Kumar. S.S, 'Design of Low Power and High Speed Implicit Pulse Flip-Flop and its Application', International Journal of Engineering

and Technology. Vol. 7, No. 3, pp. 1893-1898, 2018. (SCOPUS) - DOI: 10.14419/ijet.v7i3.1 2845

xvii.   Kuruvilla John, **Vinod Kumar. R. S**. & Kumar. S.S., 'Impact of Pulse-Triggered Flip-Flops in Low Power Applications', Journal of Advanced Research in Dynamical & Control Systems, Vol. 10, No. 01, pp. 298-306, May 2018. (SCOPUS) -

xviii. **Vinod Kumar. R. S**, & S. Arivazhagan, 'Adaptive Patch Based Texture Synthesis Using Contourlet Transform', Journal of Intelligent and Fuzzy Systems. Vol. 28, No.3, pp.1061 - 1070, May 2015. (SCI) - DOI: 10.1109/TIP.2005.859376

xix.   **Vinod Kumar. R. S**, & S. Arivazhagan, 'Region Completion in a Texture using Multiresolution Transforms', *International Journal of Engineering-TRANSACTIONS B: Applications,* Vol.27, No.5, pp.747-756, 2014. (SCOPUS) - DOI: 10.5829/ idosi.ije. 2014. 27. 05b.10

xx.   **Vinod Kumar. R. S,** & S. Arivazhagan, 'Methods for Non Uniform Patch Based Texture Synthesis using Random Selection of Patches', *International Review on Computers and Software,* Vol. 8, No.6, pp.1390-1399, 2013. (SCOPUS)

xxi.   **Vinod Kumar. R. S,** & S. Arivazhagan, 'Adaptive Patch Based Texture Synthesis Using Modified Boundary Determination Technique', *European Journal of Scientific Research,* Vol.77, No.4, pp.495-507, 2012. (SCOPUS).

B. International Conferences

i.   Reshma V. K., **Vinod Kumar R. S**., "EEG Emotion Recognition and Detection using Deep Convolutional Neural Network" International Conference on "Electrical Sciences" ICES-2020,SNS College of Technology, Coimbatore, Tamil Nadu, India, in Association with AIMST University Malaysia, 20th - 21st February 2020.

ii.   Kuruvilla John, **Vinod Kumar. R. S.** & Kumar. S.S., 'Performance of Implicit Pulsed Flip-Flops in Low Power and High Speed Applications', 2nd International Conference on Frontiers in analytical and clinical techniques on 24th and 25th January 2019, at Noorul Islam Center for Higher Education, Kumaracoil.

iii.   Ramya Ravi R, **Vinod Kumar R. S**. & Shanila N., 'Review on Various Segmentation Methods for Melanoma Detection', 2nd International Conference on Frontiers in analytical and clinical techniques on 24th and 25th January 2019, at Noorul Islam Center for Higher Education, Kumaracoil.

iv. Shanila N, **Vinod Kumar R. S.** & Ramya Ravi R., 'Medical Image Segmentation and its Application: A Survey', 2nd International Conference on Frontiers in analytical and clinical techniques on 24th and 25th January 2019., at Noorul Islam Center for Higher Education, Kumaracoil.

v. Kuruvilla John, **Vinod Kumar. R. S.** & Kumar. S.S., 'Performance Comparison of Explicit Pulsed Flip-Flops in Low Power and High Speed Applications', International Conference on Circuits and Systems in Digital Enterprise Technology on 21th and 22th December2018, at Noorul Islam Center for Higher Education, Kumaracoil.

vi. Kuruvilla John, **Vinod Kumar. R. S**. & Kumar. S.S., Impact of Pulse-Triggered Flip-Flops in Low Power Applications, 36th International Conference on recent trends in Science, Management and Engineering on 24th & 25th November 2017.

vii. **Vinod Kumar. R. S,** & Balu. B, "An analysis for co-operative control of multi missile for Static Target System", *International Conference on Trends in Computational Engineering & Technology,* on 18th & 19th February 2016.

viii. **Vinod Kumar. R. S,** & S. Arivazhagan, "Adaptive Patch Based Texture Synthesis using Wavelets", *IEEE sponsored International Conference on Signal Processing Computing, Communication and Networking Technologies, (ICSCCN 2011)* on 21st and 22nd July 2011.

ix. **Vinod Kumar. R. S**, & S. Arivazhagan, "Effects of Variation of Patch Size and Seam Size in Patch Based Texture Synthesis", *IEEE sponsored 2nd International Conference on Computing, Communication and Networking Technologies, (ICCCNT'10),* on 29th, 30th and 31st July 2010. doi: 10.1109 / ICCCNT. 2010. 5591571.

C. National Conferences

i. **Vinod Kumar. R. S** & A. K. Aswathy, "An enhanced Image Steganography using H-LSB technique and Wavelet Transform", *National Conference on Recent Advances in Engineering, Science & Technology, (BIOMED' 17)*, on 28th March 2017.

ii. **Vinod Kumar. R.S.,** & S. Shameem, "Adaptive Patch based texture synthesis using wavelets", *National Conference on Emerging Trends in Electronic World, (RETREW'11),* on 11th March 2011.

iii. **Vinod Kumar. R. S.,** & Amritha Mary A. S, "Adaptive Patch based Texture Synthesis", *5th National Conference in VLSI design and Information Technologies*, on 5th April 2011.

iv. **Vinod Kumar. R. S.** & Simi S Raj, "Speech De-noising using Teager Energy Operator", *National Conference on Emerging Trends in Communication and Networking (ETCN-2010)* on 10th April 2010.

v. **Vinod Kumar. R. S.** & Sreelekshmi. G., "Wavelet based local Patch Based Texture Synthesis", *National Conference on Emerging Trends in Communication and Networking (ETCN-2010)* on 10th April 2010.

vi. **Vinod Kumar. R. S.** & Vani Dheepa., "Removal of Visual Artifacts in Patch Based Texture Synthesis using exact neighborhood matching", *National Conference on Recent Trends in Wireless Communication* on 5th and 6th February 2009.

vii. **Vinod Kumar. R.S.,** & Jayareshmi, "VLSI Implementation of narrow band interference cancellation algorithm for a global positioning system receiver" *National Conference on Emerging Trends in Information and Communication Engineering* on 27th and 28th March 2008.

viii. **Vinod Kumar. R. S.,** & Arun P. L., "Peak to average power ratio reduction of an OFDM signal by Spectral masking", *National Conference on VLSI and Communication* on 16th and 17th March 2007.

ix. **Vinod Kumar. R. S.** "Concealed Weapon Detection using Imaging System", *National Conference on Emerging trends in Communication and Information Technology* on 20th and 21st January 2006.

x. **Vinod Kumar. R. S.** & Ramalo Joy, "Still Image Compression using Fuzzy Logic-based Predictive Coding", *National Conferences on Recent Trends in Communication Techniques (NATCON)* on 4th and 5th March 2004.

II. ADDITIONAL RESEARCH ACTIVITIES.

i Technical Session Chair & Reviewer for the *International Conference on Networks, Image and Security, (ICNIS-2019)* conducted by the Department of Information Technology, N I Centre for higher Education, Kumaracoil, on 10th & 11th April 2019.

ii Technical Session Chair & Reviewer for the *International Conference on Control, Instrumentation, Communication & Computational Technologies, (ICCICCT-2016)* conducted by the Department of Electronics & Instrumentation Engineering, N I Centre for higher Education, Kumaracoil, on 16th & 17th December 2016.

iii   Technical Session Chair & Reviewer for the Springer *International Conference on Soft Computing Systems-2016 (ICSCS-2016)*, conducted by the Department of Electrical & Electronics   Engineering, N I Centre for higher Education, Kumaracoil, on   19th February 2016.

iv   Technical Session Chair & Reviewer for the *International Conference on Control, Instrumentation, Communication & Computational Technologies, (ICCICCT-2015)* conducted by the Department of Electronics & Instrumentation Engineering, N I Centre for higher Education, Kumaracoil, on 18th & 19th December 2015.

v   Technical Session Chair & Reviewer for the *International Conference on Soft Computing in Applied Engineering & Sciences, (ICSCASE-2015)* conducted by the Department of Electronics & Instrumentation Engineering, N I Centre for higher Education, Kumaracoil, on 23rd & 24th July 2015.

vi   Technical Session Chair & Reviewer for the *International Conference on Control, Instrumentation, Communication & Computational Technologies (ICCICCT-2014)* conducted by the Department of Electronics & Instrumentation Engineering, N I Centre for higher Education, Kumaracoil, on 10th & 11th July 2014.

III. SEMINARS, CONFERENCES & WORKSHOPS ATTENDED

i.   Attended one day Training on 'Basic Life support and First Aid Skills'- both Theory and Practical, organized by M/S. Saadhana Health and Safety Solutions, Chennai, on 28th March 2019.

ii.   Attended one day Workshop on 'Outcome based Education' organized by the Internal Quality Assurance Cell, Noorul Islam Centre for Higher Education, Kumaracoil, on 2nd November 2018.

iii.   Attended   a Two Day Workshop on 'Embedded System Programming on Arduino Uno' ESPAU 2K18, conducted by the Department of Electronics & Communication Engineering, Noorul Islam Centre for Higher Education, Kumaracoil, on 23rd and 24th March 2018.

iv.   Attended one day Webinar on RTL Design and Functional Verification, on 11th October 2017 by Maven Silicon Softech Pvt. Ltd., Bangalore.

v.   Attended two day workshop on Lab VIEW Programming Environment jointly organized by National Instruments & Department of Electronics & Communication Engineering, Noorul Islam Centre for Higher education, India on 2nd & 3rd September 2016.

vi.   Attended one day seminar on 'Engineering Education and Research' conducted by National Instruments, India on 29th March 2016.

vii.   Participated in the two day Technical Seminar on 'Video Analytics' conducted by Department of Electronics & Communication Engineering at Mepco Schlenk Engineering College, Sivakasi, Tamil Nadu on 18th and 19th September, 2015.

viii. Participated in the three day Faculty Orientation Programme held at Noorul Islam Centre for higher Education, Kumaracoil from 9th to 11th June 2013.

ix.   Participated in the 2013 IEEE Conference on Information & Communication Techniques (ICT 2013), conducted by the Department of Electronics & Communication Engineering, Noorul Islam Centre for higher Education, Kumaracoil on 11th & 12th April 2013.

x.   Participated in the two day Technical Seminar on 'Speech and Audio Signal Processing' conducted by the Department of Electronics & Communication Engineering, at Mepco Schlenk Engineering College, Sivakasi, on 14th & 15th September 2012.

xi.   Participated in the 1st IEEE sponsored International Conference on Signal Processing Computing, Communication and Networking Technologies (ICSCCN2011) conducted by Noorul Islam Centre for Higher Education, Kumaracoil, on 21st & 22nd July 2011.

xii.   Participated in the AICTE Sponsored Staff Development Programme on Signal and Image Analysis Using Time/Frequency Transforms conducted by the Department of Electronics & Communication Engineering, Muthayammal Engineering College, Rasipuram, from 30th May to 12th June 2011.

xiii. Participated in the two day Technical Seminar on 'Wavelet Transforms and its Applications' conducted by the Department of Electronics & Communication Engineering, at Mepco Schlenk Engineering College, Sivakasi, during February 04-05, 2011.

xiv.   Participated in the two day Workshop on 'LateX' held at Noorul Islam Centre for Higher Education, Kumaracoil, on 15th and 16th December 2010.

xv.   Attended ISTE approved Short Term Training Programme on "Image Processing with practical applications" organized by the Department of Electronics & Communication

of Mar Baselious College of Engineering and Technology, Thiruvananthapuram during 14th to 18th June 2010.

xvi. Participated in the 2nd International IEEE Sponsored Conference on Computing, Communication and .Networking Technologies held during 29th, 30th & 31st July 2010.

xvii. Attended two day National workshop on "Wavelets and its applications in Signal/Image processing" organized by the Department of Electronics & Communication of Anna University, Coimbatore, on 5th & 6th March 2010.

xviii. Attended one day workshop on Patent Awareness on 16th February 2004, held at N I College of Engineering conducted by Tamil Nadu State Council for Science & Technology in association with Patent Office, Chennai Branch.

xix. Completed a training course in Optical Fiber Cable conducted by Regional Training Centre, Thiruvananthapuram from 22nd to 26th July 2002.

IV. PROJECT PROPOSALS SUBMITTED

i   Submitted a project proposal under FIST- PROJECT (Level-1) in the subject area of Engineering & Technology to Department of Science & Technology (DST), New Delhi - 110 016, on 28th May 2020 for an amount of Rs. 90,20,000/-

ii Submitted a project proposal entitled 'Recognizing Surgically Altered Face Images Using Local Derivative Pattern Algorithm' to Department of Science & Technology (DST), New Delhi - 110 016 on 30/04/2020 for an amount of Rs. 1,20,2000/-

iii Submitted a project proposal entitled 'Computer Assisted Framework For Liver Disease Diagnosis Using Deep Convolutional Neural Network' to SERB/SUPRA, Department of Science & Technology (DST), New Delhi - 110 016 during 2020 for an amount of Rs. 7,88,000/-

iv Submitted a project proposal entitled 'Development of Computer Aided Webcam Equipped Liver Cancer Detection System' in Tamil Nadu State Council for Science and Technology, during February 2019 for an amount of Rs. 4,86,000/-

v   Submitted a project proposal entitled 'Computer aided Skin Cancer Detection System' in Tamil Nadu State Council for Science and Technology, during February 2019 for an amount of Rs. 4,86,000/-

vi   Submitted a project proposal under FIST- PROJECT (Level-1) in the subject area of Engineering & Technology during June 2018 for an amount of Rs. 10000000/- to Department of Science & Technology (DST), New Delhi - 110 016.

V. PATENTS APPLICATIONS FILED

i   Submitted a patent application entitled 'ARTIFICAL INTELLGENCE BASED LIVER CANCER DETECTION SYSTEM (LiverNet)' vide application no. 201941025614