

UNIVERSITATEA TEHNICĂ "GHEORGHE ASACHI" DIN IAȘI  
 FACULTATEA DE ELECTRONICĂ, TELECOMUNICAȚII ȘI TEHNOLOGIA INFORMAȚIEI  
 DEPARTAMENTUL DE TELECOMUNICAȚII ȘI TEHNOLOGII INFORMAȚIONALE  
 Ramura de știință: Inginerie electrică, electronică și telecomunicații  
 Domeniul de studii: Inginerie electronică și telecomunicații

## FIȘA DE VERIFICARE

a îndeplinirii standardelor minime pentru conferirea titlului de conferențiar

conform OM 6129/20.12.2016

Comisia CNATDCU nr. 11 – Electronică, telecomunicații și nanotehnologie

Cadru didactic: NICOLAE CLEJU

Funcția vizată: Conferențiar

Condiția	Minim	Realizat			Condiția este îndeplinită (Da / Nu)
A1	50	A1.1	A1.2	Total	Da
		50	40	90	
A2	300	491			Da
A3	50	377.66			Da
TOTAL (A)	400	958.66			Da

Condiții minime obligatorii pe subcategorii (număr)	Minim	Realizat	Condiția este îndeplinită (Da / Nu)
A1.1.1 – A1.1.2	1 carte / capitol	1 carte	Da
A2.1	6, minim 1 Q1/Q2	19, Q1: 2	Da
A2.4.1	1	1	Da
A3.1.1	10	60	Da
Factor de impact cumulativ	4	15.616	Da

## A1. ACTIVITATEA DIDACTICĂ ȘI PROFESIONALĂ

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### A1.1. Cărți și capitole în cărți de specialitate în edituri recunoscute

Nr.crt.	Titlul lucrării	Punctaj
<b>A1.1.2 Edituri naționale</b>		
1.	<b>Cleju N.</b> , <i>Advanced signal processing : sparse coding and applications</i> , Editura TEHNOPRESS, Iași, 2019, ISBN 978-606-687-390-1 205 pagini	50
<b>TOTAL A1.1</b>		<b>50</b>

### A1.2. Material didactic / Lucrări didactice

Nr.crt.	Titlul lucrării	Punctaj
1.	<b>Cleju N.</b> , <i>Tehnici de compresie a semnalelor multimedia (Îndrumar de laborator)</i> , Editura Politehniun, Iași, 2016, ISBN 978-973-621-456-1	40
<b>TOTAL A1.2</b>		<b>40</b>

## A2. ACTIVITATEA DE CERCETARE

**A2.1 Articole în reviste cotate și în volumele unor manifestări științifice indexate ISI Proceedings [(25+30 \* factor impact) /nr. de autori]  
[pentru volumele manifestărilor ISI se consideră factorul de impact echivalent 0.25]**

Nr. crt.	Titlul articolului	Factor de impact	Nr. autori	Punctaj
1.	<b>N. Cleju</b> , „Optimized projections for compressed sensing via rank-constrained nearest correlation matrix” Applied and Computational Harmonic Analysis <b>(Q1)</b> vol. 36, no. 3, pp. 495-507, 2014	2.964	1	113.92
2.	<b>N. Cleju</b> , N. Thomos, P. Frossard, „Selection of network coding nodes for minimal playback delay in streaming overlays” IEEE Transactions on Multimedia <b>(Q1)</b> vol. 13, no. 5, pp. 1103-1115, 2011	5.452	3	62.85
3.	M. Fira, L. Goras, C. Barabasa, and <b>N. Cleju</b> , ”On ECG Compressed Sensing using Specific Overcomplete Dictionaries”, Advances in Electrical and Computer Engineering vol. 10, no. 4, pp. 23-28, 2010	0.7	4	11.5
4.	C. F. Caruntu, L. Ferariu, C. Pascal, <b>N. Cleju</b> and C. R. Comsa, “Connected cooperative control for multiple-lane automated vehicle flocking on highway scenarios,” 2019 23rd International Conference on System Theory, Control and Computing (ICSTCC), Sinaia, Romania, 2019, pp. 791-796.	0.25	5	6.5
5.	C. F. Caruntu, L. Ferariu, C. M. Pascal, <b>N. Cleju</b> and C. R. Comsa, "A Concept of Multiple-lane Vehicle Grouping by Swarm Intelligence," 2019 24th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA), Zaragoza, Spain, 2019, pp. 1183-1188.	0.25	5	6.5
6.	<b>N. Cleju</b> , I.Ciocioiu, “Spectrum Insensitive Sparse Recovery with Iterative Affine Projections”, Proc. 27th European Signal Processing Conference EUSIPCO 2019, 2019, A Coruna, Spain	0.75	2	23.75
7.	<b>N. Cleju</b> , I.Ciocioiu, “Fusion of Orthogonal Matching Pursuit and Least Squares Pursuit for Robust Sparse Recovery”, Proc International Symposium on Signals, Circuits and Systems (ISSCS) 2019, Iasi, Romania, 1-4	0.25	2	16.25
8.	I.Ciocioiu, <b>N. Cleju</b> , “Off-the-person ECG Biometrics Using Convolutional Neural Networks”, Proc International Symposium on Signals, Circuits and Systems (ISSCS) 2019, Iasi, Romania, 1-4	0.25	2	16.25
9.	<b>N Cleju</b> , “Least Squares Pursuit for sparse signal recovery”, Proc International Symposium on Signals, Circuits and Systems (ISSCS) 2017, 1-4	0.25	1	32.5

10.	<b>N. Cleju</b> , “Sparse signal recovery with additional $\ell_2$ null space constraint”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2015, pp.1-4, Iasi, Romania, 2015	0.25	1	32.5
11.	N. D. Alexandru, <b>N. Cleju</b> , “Implementation considerations regarding improved Nyquist filters”, in International Conference on Electronics, Computers and Artificial Intelligence (ECAI) 2013, 2013, pp. 1–4	0.25	2	16.25
12.	<b>N. Cleju</b> , “A generalization of analysis and synthesis sparsity”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2013, Iasi, Romania, 2013	0.25	1	32.5
13.	<b>N. Cleju</b> , M. G. Jafari, M. D. Plumbley, “Choosing Analysis or Synthesis Recovery for Sparse Reconstruction”, Proc. 20th European Signal Processing Conference EUSIPCO 2012, pp. 869-873, 2012	0.75	3	15.833
14.	M. Fira, L. Goras, <b>N. Cleju</b> , C. Barabasa, “Results on ECG Compressed Sensing using Specific Dictionaries and its Validation”, Proc. 34th International Conference on Information Technology Interfaces (ITI) 2012, pp. 423-428, 2012	0.25	4	8.125
15.	<b>N. Cleju</b> , M. Jafari, and M. D. Plumbley, “Analysis-based sparse reconstruction with synthesis-based solvers”, Proc. International Conference on Acoustics, Speech and Signal Processing 2012, Kyoto, Japan, pp. 5401-5404, 2012	0.75	3	15.833
16.	C. M. Fira, L. Goras, C. Barabasa, and <b>N. Cleju</b> , “ECG compressed sensing based on classification in compressed space and specified dictionaries”, Proc. 19th European Signal Processing Conference EUSIPCO 2011, 2011, pp. 1573-1577, 2011 2012, Kyoto, Japan, pp. 5401-5404, 2012	0.75	4	11.875
17.	<b>N. Cleju</b> , C. M. Fira, C. Barabasa, and L. Goras, “Robust reconstruction of compressively sensed ECG signals”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2011, Iasi, Romania, pp. 507-510, 2011	0.25	4	8.125
18.	M. Fira, L. Goras, <b>N. Cleju</b> , and C. Barabasa, “On the classification of compressed sensed signals”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2011, pp 503-507, 2011	0.25	4	8.125
19.	<b>N. Cleju</b> , N. Thomos, and P. Frossard, “Network coding node placement for delay minimization in streaming overlays”, Proc. IEEE International Conference on Communications ICC 2010, pp. 1-5, 2010	0.75	3	15.833
<b>TOTAL A2.1</b>				<b>455</b>
<b>FACTOR DE IMPACT CUMULAT</b>				<b>15.616</b>

**A2.4 Granturi / proiecte internaționale câștigate prin competiție  
(Director/ responsabil/membru în echipă)**

Nr. crt.	Titlul contractului	Număr ani	Punctaj
<b>A2.4.1.1 Director/responsabil grant internațional</b>			<b>[20 * ani de desfășurare]</b>
<b>A2.4.1.2 Director/responsabil grant național</b>			<b>[10 * ani de desfășurare]</b>
1.	„Sparse Coding for Efficient Biomedical Signal Processing”, CNCS – UEFISCDI, proiect PN-III-P1-1.1-PD-2016-0127, perioada 2018-2020 (în derulare)	2	20
<b>A2.4.2.1 Membru în echipă grant internațional</b>			<b>[4 * ani de desfășurare]</b>
<b>A2.4.2.2 Membru în echipă grant național</b>			<b>[2 * ani de desfășurare]</b>
1.	“Medical signal processing methods based on compressed sensing; applications and their implementation”, CNCS – UEFISCDI, proiect PN-II-RU-TE-2014-4-0832, 2015-2017	2	4
3.	Vis-a-vis: instrumente software bazate pe analiza expresiei feței utilizate pentru interacțiunea om-mașină inteligentă, Grant CNCSIS-A, cod 194, 2008 (2008-2009)	2	4
4.	“Research On Using Cellular Neural Networks In Linear And Non-Linear Signal Processing Applications”, contract 77 GR/ 11.06.2008 tema 17, COD CNCSIS 226, director: prof.dr. Liviu Goras	2	4
5.	“Sistem de investigatie, asistare si control al afectiunilor neurologice bazat pe interfata creier-calculator”, acronim BCISIS, Parteneriate in domenii prioritare, 2008 – 2011, Contract nr: 12115 / 01.10.2008, Cod proiect: 3332	2	4
<b>TOTAL A2.4</b>			<b>36</b>
<b>TOTAL A2</b>			<b>491</b>

### A3. RECUNOAȘTEREA ȘI IMPACTUL ACTIVITĂȚII

#### A3.1 Citări în cărți, reviste și volume ale unor manifestări științifice (fără autocitări) [cărți/ISI = 8 / nr. autori articol citat; BDI = 4 / nr. autori articol citat]

Nr. crt.	Titlul lucrării proprii	Citări ISI	Citări BDI	Punctaj
1.	<b>N. Cleju</b> , „Optimized projections for compressed sensing via rank-constrained nearest correlation matrix”, <i>Applied and Computational Harmonic Analysis (Q1)</i> , vol. 36, no. 3, pp. 495-507, 2014	19	8	184
<a href="#">[HTML] Optimized projections for compressed sensing via rank-constrained nearest correlation matrix</a> <a href="#">N.Cleju - Applied and Computational Harmonic Analysis, 2014 - Elsevier</a> Optimizing the acquisition matrix is useful for compressed sensing of signals that are sparse in overcomplete dictionaries, because the acquisition matrix can be adapted to the particular correlations of the dictionary atoms. In this paper a novel formulation of the optimization problem is proposed, in the form of a rank-constrained nearest correlation matrix problem. Furthermore, improvements for three existing optimization algorithms are introduced, which are shown to be particular instances of the proposed formulation. Simulation results show ... ☆ 99 Cited by 27 Related articles All 5 versions Web of Science: 19 48				
2.	<b>N. Cleju</b> , N. Thomos, P. Frossard, „Selection of network coding nodes for minimal playback delay in streaming overlays”, <i>IEEE Transactions on Multimedia (Q1)</i> , vol. 13, no. 5, pp. 1103-1115, 2011	10	13	44
<a href="#">Selection of network coding nodes for minimal playback delay in streaming overlays</a> <a href="#">N.Cleju, N.Thomos, P.Frossard - IEEE Transactions on ..., 2011 - ieeexplore.ieee.org</a> Network coding permits to deploy distributed packet delivery algorithms that locally adapt to the network availability in media streaming applications. However, it may also increase delay and computational complexity if it is not implemented efficiently. We address here the effective placement of a limited number of nodes that implement randomized network coding in overlay networks, so that the goodput is kept high while the delay for decoding stays small in streaming applications. We first estimate the decoding delay at each client, which ... ☆ 99 Cited by 23 Related articles All 18 versions Web of Science: 10 48				
3.	M. Fira, L. Goras, C. Barabasa, and <b>N. Cleju</b> , ”On ECG Compressed Sensing using Specific Overcomplete Dictionaries”, <i>Advances in Electrical and Computer Engineering</i> , vol. 10, no. 4, pp. 23-28, 2010	12 (fara autocitari)	11	33
<a href="#">On ECG compressed sensing using specific overcomplete dictionaries</a> <a href="#">M.Fira, L.Goras, C.Barabasa, N.Cleju - Advances in Electrical and ..., 2010 - aece.ro</a> A Brief Review on the Validity and Reliability of Microsoft Kinect Sensors for Functional Assessment Applications, DIAZ-MONTERROSAS, PR, POSADA-GOMEZ, R., MARTINEZ-SIBAJA, A., AGUILAR-LASSERRE, AA, JUAREZ-MARTINEZ, U., TRUJILLO-CABALLERO, JC ☆ 99 Cited by 28 Related articles Web of Science: 17 Cached 48				
4.	<b>N. Cleju</b> , I.Ciociu, “Spectrum Insensitive Sparse Recovery with Iterative Affine Projections”, <i>Proc. 27th European Signal Processing Conference EUSIPCO 2019</i> , 2019, A Coruna, Spain, <i>to appear (accepted)</i>	0	0	0
5.	<b>N. Cleju</b> , I.Ciociu, “Fusion of Orthogonal Matching Pursuit and Least Squares Pursuit for	0	0	0

	Robust Sparse Recovery”, Proc International Symposium on Signals, Circuits and Systems (ISSCS) 2019, Iasi, Romania, 1-4			
6.	I.Ciocoiu, <b>N. Cleju</b> , “Off-the-person ECG Biometrics Using Convolutional Neural Networks”, Proc International Symposium on Signals, Circuits and Systems (ISSCS) 2019, Iasi, Romania, 1-4	0	0	0
7.	<b>N Cleju</b> , “Least Squares Pursuit for sparse signal recovery”, Proc International Symposium on Signals, Circuits and Systems (ISSCS) 2017, 1-4	0	1	4
<p><b>Least squares pursuit for sparse signal recovery</b>  <a href="#">N Cleju - 2017 International Symposium on Signals, Circuits ..., 2017 - ieeeexplore.ieee.org</a>  This paper presents a novel algorithm for sparse signal recovery, named Least Squares Pursuit, based on least-squares minimization followed by choosing the atom with the largest resulting coefficient, in a greedy one-by-one fashion. It follows a similar approach to that of Orthogonal Matching Pursuit, but with different prioritization of the constraints. We propose an efficient implementation for Least Squares Pursuit, derive theoretical guarantees for signal recovery, and finally present promising simulation results.  ☆ 99 Cited by 1 Related articles</p>				
8.	<b>N. Cleju</b> , “Sparse signal recovery with additional $\ell_2$ null space constraint”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2015, pp.1-4, Iasi, Romania, 2015	0	0	0
9.	N. D. Alexandru, <b>N. Cleju</b> , “Implementation considerations regarding improved Nyquist filters”, in International Conference on Electronics, Computers and Artificial Intelligence (ECAI) 2013, 2013, pp. 1–4	0	2	4
<p><b>Implementation considerations regarding improved nyquist filters</b>  ND Alexandru, <a href="#">N Cleju - Proceedings of the International ..., 2013 - ieeeexplore.ieee.org</a>  This paper presents considerations regarding the design and implementation of improved Nyquist filters (INFs). Special attention is paid to the use of truncated root-pulse in the practical engineering perspective. A comparison of several INF pulses with hM-1 and hM-3 pulses that suffer no spectral regrowth is made. Although they are outperformed by the hM pulses in terms of spectral regrowth, the pulses generated by INFs are superior in terms of error probability up to one order of magnitude when sampled with a time offset.  ☆ 99 Cited by 2 Related articles All 4 versions</p>				
10.	<b>N. Cleju</b> , “A generalization of analysis and synthesis sparsity”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2013, Iasi, Romania, 2013	0	0	0
11.	<b>N. Cleju</b> , M. G. Jafari, M. D. Plumbley, “Choosing Analysis or Synthesis Recovery for Sparse Reconstruction”, Proc. 20th European Signal Processing Conference EUSIPCO 2012, pp. 869-873, 2012	3	2	10.66



<div> <div> <b>CHOOSING ANALYSIS OR SYNTHESIS RECOVERY FOR SPARSE RECONSTRUCTION</b>  By: <a href="#">Cleju, Nicolae</a>; <a href="#">Jafari, Maria G.</a>; <a href="#">Plumbley, Mark D.</a>  Conference: 20th European Signal Processing Conference (EUSIPCO) Location: Bucharest, ROMANIA Date: AUG 27-31, 2012  2012 PROCEEDINGS OF THE 20TH EUROPEAN SIGNAL PROCESSING CONFERENCE (EUSIPCO) Book Series: European Signal Processing Conference Pages: 869-873 Published: 2012 </div> <div> <b>Times Cited: 3</b>  <i>(from Web of Science Core Collection)</i>  <b>Usage Count</b> ▾ </div> </div> <div> <p><a href="#">Choosing analysis or synthesis recovery for sparse reconstruction</a>  <a href="#">N Cleju</a>, <a href="#">MG Jafari</a>, <a href="#">MD Plumbley</a> - 2012 Proceedings of the ..., 2012 - <a href="#">ieeexplore.ieee.org</a></p> <p>The analysis sparsity model is a recently introduced alternative to the standard synthesis sparsity model frequently used in signal processing. However, the exact conditions when analysis-based recovery is better than synthesis recovery are still not known. This paper constitutes an initial investigation into determining when one model is better than the other, under similar conditions. We perform separate analysis and synthesis recovery on a large number of randomly generated signals that are simultaneously sparse in both models and ...</p> <p>☆ 99 Cited by 5 Related articles All 10 versions</p> </div>				
12.	M. Fira, L. Goras, <b>N. Cleju</b> , C. Barabasa, “Results on ECG Compressed Sensing using Specific Dictionaries and its Validation”, Proc. 34th International Conference on Information Technology Interfaces (ITI) 2012, pp. 423-428, 2012	3	6	12
<div> <div> <b>Results on ECG Compressed Sensing using Specific Dictionaries and its Validation</b>  By: <a href="#">Fira, Monica</a>; <a href="#">Goras, Liviu</a>; <a href="#">Cleju, Nicolae</a>; et al.  Conference: 34th International Conference on Information Technology Interfaces (ITI) Location: Cavtat, CROATIA Date: JUN 25-28, 2012  Sponsor(s): Univ Zagreb, Univ Comp Ctr; Croatian Acad Sci &amp; Arts; IEEE Reg 8; IEEE Croatia Sect; IEEE Croatia Comp Chapter; Republ Croatia, Minist Sci Educ &amp; Sport  PROCEEDINGS OF THE ITI 2012 34TH INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY INTERFACES (ITI) Book Series: ITI Pages: 423-428 Published: 2012 </div> <div> <b>Times Cited: 3</b>  <i>(from Web of Science Core Collection)</i>  <b>Usage Count</b> ▾ </div> </div> <div> <p><a href="#">Results on ECG compressed sensing using specific dictionaries and its validation</a>  <a href="#">M Fira</a>, <a href="#">L Goras</a>, <a href="#">N Cleju</a>... - Proceedings of the ITI ..., 2012 - <a href="#">ieeexplore.ieee.org</a></p> <p>The paper presents a new method and results regarding the compressed sensing (CS) and classification of ECG waveforms using a general dictionary as well as specific dictionaries built using normal and pathological cardiac patterns. The proposed method has been validated by computation of the distortion errors between the original and the reconstructed signals and by the classification ratio of the reconstructed signals obtained with the k-nearest neighbors (KNN) algorithm.</p> <p>☆ 99 Cited by 9 Related articles All 2 versions</p> </div>				
13.	<b>N. Cleju</b> , M. Jafari, and M. D. Plumbley, “Analysis-based sparse reconstruction with synthesis-based solvers”, Proc. International Conference on Acoustics, Speech and Signal Processing 2012, Kyoto, Japan, pp. 5401-5404, 2012	5 (fara autoritari)	3	17.33
<div> <div> <b>ANALYSIS-BASED SPARSE RECONSTRUCTION WITH SYNTHESIS-BASED SOLVERS</b>  By: <a href="#">Cleju, Nicolae</a>; <a href="#">Jafari, Maria G.</a>; <a href="#">Plumbley, Mark D.</a>  Conference: IEEE International Conference on Acoustics, Speech and Signal Processing Location: Kyoto, JAPAN Date: MAR 25-30, 2012  Sponsor(s): Inst Elect &amp; Elect Engineers, Signal Processing Soc; IEEE  2012 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING (ICASSP) Book Series: International Conference on Acoustics Speech and Signal Processing ICASSP Pages: 5401-5404 Published: 2012 </div> <div> <b>Times Cited: 8</b>  <i>(from Web of Science Core Collection)</i>  <b>Usage Count</b> ▾ </div> </div>				



<p><a href="#">Analysis-based sparse reconstruction with synthesis-based solvers</a>  <a href="#">N Cleju</a>, <a href="#">MG Jafari</a>, <a href="#">MD Plumbley</a> - 2012 IEEE International ..., 2012 - <a href="#">ieeexplore.ieee.org</a>          Analysis based reconstruction has recently been introduced as an alternative to the well-known synthesis sparsity model used in a variety of signal processing areas. In this paper we convert the analysis exact-sparse reconstruction problem to an equivalent synthesis recovery problem with a set of additional constraints. We are therefore able to use existing synthesis-based algorithms for analysis-based exact-sparse recovery. We call this the Analysis-By-Synthesis (ABS) approach. We evaluate our proposed approach by comparing ...          ☆ 99 Cited by 12 Related articles All 18 versions</p>				
14.	<p>C. M. Fira, L. Goras, C. Barabasa, and <b>N. Cleju</b>,          “ECG compressed sensing based on classification in compressed space and specified dictionaries”, Proc. 19th European Signal Processing Conference EUSIPCO 2011, 2011, pp. 1573-1577, 2011 2012, Kyoto, Japan, pp. 5401-5404, 2012</p>	8	14	30
<div> <div> <p><b>ECG COMPRESSED SENSING BASED ON CLASSIFICATION IN COMPRESSED SPACE AND SPECIFIED DICTIONARIES</b></p> <p>By: Fira, Catalina Monica; Goras, Liviu; Barabasa, Constantin; et al.            Conference: 19th European Signal Processing Conference (EUSIPCO) Location: Barcelona, SPAIN Date: AUG 29-SEP 02, 2011            Sponsor(s): Ctr Tecnol Telecomunicac Catalunya; European Assoc Signal Speech &amp; Image Proc            19TH EUROPEAN SIGNAL PROCESSING CONFERENCE (EUSIPCO-2011) Book Series: European Signal Processing Conference Pages: 1573-1577 Published: 2011</p> </div> <div> <p>Times Cited: 9            (from Web of Science Core Collection)</p> <p>Usage Count ▼</p> </div> </div> <p><a href="#">ECG compressed sensing based on classification in compressed space and specified dictionaries</a>  <a href="#">CM Fira</a>, <a href="#">L Goras</a>, <a href="#">C Barabasa</a>... - 2011 19th European ..., 2011 - <a href="#">ieeexplore.ieee.org</a>          An electrocardiographic signal (ECG) compressed sensing (CS) method, its reconstruction using specific dictionaries of cardiac pathologies and method evaluation testing using classical measures as well as by classification error of the reconstructed patterns based on the K-Nearest Neighbour classifier (KNN) are presented. For compressed sensing, a random matrix with standard normal distribution was used, followed by a classification of compressed signals in one of eight possible pathological classes. For each class a specific ...          ☆ 99 Cited by 28 Related articles All 6 versions</p>				
15.	<p><b>N. Cleju</b>, C. M. Fira, C. Barabasa, and L. Goras,          “Robust reconstruction of compressively sensed ECG signals”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2011, Iasi, Romania, pp. 507-510, 2011</p>	0	6	6
<p><a href="#">Robust reconstruction of compressively sensed ECG signals</a>  <a href="#">N Cleju</a>, <a href="#">M Fira</a>, <a href="#">C Barabasa</a>... - ISSCS 2011-International ..., 2011 - <a href="#">ieeexplore.ieee.org</a>          This paper presents a robust reconstruction technique of electrocardiograph (ECG) signals in a compressed sensing based acquisition system, using custom complete and overcomplete dictionaries composed of real ECG patterns. Both signals and atoms are preprocessed segments of ECG recordings. We tested three types of projection matrices and found that the best reconstruction results are obtained when the projection matrix is the product of a random matrix with the transpose of the dictionary used for the sparse ...          ☆ 99 Cited by 9 Related articles All 2 versions</p>				
16.	<p>M. Fira, L. Goras, <b>N. Cleju</b>, and C. Barabasa, “On the classification of compressed sensed signals”, Proc. International Symposium on Signals, Circuits and Systems ISSCS 2011, pp 503-507, 2011</p>	0	2	2
<p><a href="#">On the classification of compressed sensed signals</a>  <a href="#">M Fira</a>, <a href="#">L Goras</a>, <a href="#">N Cleju</a>... - ISSCS 2011-International ..., 2011 - <a href="#">ieeexplore.ieee.org</a>          This paper presents a study on the possibilities for the classification of ECG signals acquired based on the theory of compressed sensing (CS). We propose an analysis of the classification results of the ECG signals acquired according to Nyquist theorem as compared to compress sensed signals using two different classifiers, namely nearest neighbor type classifier and a MLP neural network.          ☆ 99 Cited by 2 Related articles All 2 versions</p>				

17.	N. Cleju, N. Thomos, and P. Frossard, "Network coding node placement for delay minimization in streaming overlays", Proc. IEEE International Conference on Communications ICC 2010, pp. 1-5, 2010	0	23	30.66
<p><a href="#">Network coding node placement for delay minimization in streaming overlays</a>  <a href="#">N Cleju</a>, <a href="#">N Thomos</a>, <a href="#">P Frossard</a> - 2010 IEEE International ..., 2010 - <a href="#">ieeexplore.ieee.org</a>  Network coding has been proposed recently as an efficient method to increase network throughput by allowing network nodes to combine packets instead of simply forwarding them. However, packet combinations in the network may increase delay, complexity and even generate overly redundant information when they are not designed properly. Typically, the best performance is not achieved when all the nodes perform network coding. In this paper, we address the problem of efficiently placing network coding nodes in overlay ...  ☆ ⓘ Cited by 24 Related articles All 12 versions</p>				
<b>Număr total citări ISI</b>				<b>60</b>
<b>TOTAL A3.1</b>				<b>377.66</b>
<b>TOTAL A3</b>				<b>377.66</b>