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1 著書

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2 解説・総説

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4 Book Chapters

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7 外部資金獲得状況

7.1 科学研究費補助金

1. 平成 24～26 年度 科学研究費補助金 基盤研究 (B) 「脳インタフェース実現のためのテンソル同時対角化原理による信号処理の構築と応用」 (研究代表者)
2. 平成 23～24 年度 科学研究費補助金 挑戦的萌芽研究 「脳のデジタル通信:感覚刺激による変調と脳波からの復調」, 3,770 千円 (研究代表者)
3. 平成 21～23 年度 科学研究費補助金 基盤研究 (B) 「脳コンピュータインタフェースのためのデータ駆動型多チャンネル信号処理」, 13,900 千円 (研究代表者)
4. 平成 18～20 年度 科学研究費補助金 基盤研究 (B) 「信号空間の構造に基づいた学習理論の構築とその応用」, 14,500 千円 (研究分担者)

5. 平成 18～20 年度 科学研究費補助金 若手研究 (B) 「過標本化フィルタバンクに関する設計理論の構築と信号推定問題への応用」, 3,500 千円 (研究代表者)
6. 平成 17～18 年度 科学研究費補助金 基盤研究 (C)(一般) 「プライバシー保護と被写体の識別を両立させる固定モニタカメラ映像処理手法の研究」, 3,500 千円 (研究分担者)
7. 平成 15～17 年度 科学研究費補助金 基盤研究 (C)(2) 「カーネル相対主成分分析によるパターン認識」, 3,600 千円 (研究分担者)
8. 平成 15～17 年度 科学研究費補助金 基盤研究 (C)(2), 3,500 千円 「時変フィルタバンクとその応用に関する研究」 (研究代表者)
9. 平成 12～14 年度 科学研究費補助金 特別研究員奨励費, 3,000 千円 「画像符号化のための適応線形変換に関する研究」 (研究代表者)

7.2 民間財団等

1. 平成 24 年度 財団法人 電気通信普及財団 研究調査助成 「フェージング環境下における正弦波パラメータ推定のベイズアプローチ」, 1,000 千円 (研究代表者)
2. 平成 20～22 年度 テレコム先端技術研究支援センター SCAT 研究費助成 「ポケ種類の同定による高精度ブラインド画像復元」, 2,500 千円 (研究代表者)
3. 平成 20 年度 立石科学技術振興財団 助成事業 「多チャネル脳波からの効率的な律動信号抽出法」, 2,500 千円 (研究代表者)
4. 平成 19 年度 財団法人 電気通信普及財団 研究調査助成 「超解像のための領域分割による動き検出法」, 1,000 千円 (研究代表者)
5. 平成 18～20 年度 財団法人 国際コミュニケーション基金 調査研究助成 「ランク可変なアレイ信号処理の学習法」, 2,000 千円 (研究代表者)
6. 平成 17～19 年度 テレコム先端技術研究支援センター SCAT 研究費 「フィルタバンクと画素単位動き予測補償を用いた動画像符号化」 (研究分担者)
7. 平成 16 年度 財団法人 カシオ科学振興財団 第 22 回 (平成 16 年度) 研究助成 「チャンネル欠損可能な完全再構成冗長 FIR フィルタバンクの構築」, 1,000 千円 (研究代表者)
8. 平成 15 年 8 月 財団法人 大川情報通信基金 2003 年度研究助成, 1,000 千円 「画像符号化のための高い設計自由度を持つフィルタバンクに関する研究」 (研究代表者)

7.3 共同研究・受託研究・その他

1. 平成 22 年度 共同研究 「気象レーダにおける地形エコー除去技術の開発」 (研究代表者)
2. 平成 21 年度 共同研究 「気象レーダにおける地形エコー除去技術の開発」 (研究代表者)
3. 平成 20 年度 共同研究 「気象レーダにおける地形エコー除去技術の開発」 (研究代表者)
4. 平成 19～20 年度 独立行政法人日本学術振興会 二国間事業共同研究英国との共同研究 (王立協会) 「多次元経験的モード分解の開発と脳波モダリティ解析への応用」, 5,000 千円 (研究代表者)
5. 平成 16 年 財団法人 井上科学振興財団 国際研究集会出席旅費, 200 千円

8 所属学協会・活動

- 電子情報通信学会 正員
 - *Senior Member*, The Institute of Electrical and Electronics Engineers (IEEE)
 - *Member*, Asia Pacific Signal and Information Processing Association (APSIPA)
1. *Guest Editor*, “Content-Centric Live Streaming of User-Generated Media Content,” The Scientific World Journal (Hindawi) (平成 27 年予定)
 2. *Tutorial Session Co-Chair*, APSIPA Summit and Conference (APSIPA ASC 2014) (平成 26 年)
 3. *Past-Chair*, Technical Committee on Biomedical Signal Processing and Systems, APSIPA. (平成 25 年～現在)
 4. 電子情報通信学会 第 28 回信号処理シンポジウム 幹事 (平成 25 年)
 5. *Chair*, Technical Committee on Biomedical Signal Processing and Systems, APSIPA. (平成 22 年～25 年)
 6. *Member*, Technical Committee on Signal and Information Processing Theory and Methods, APSIPA (平成 22 年～現在)
 7. *Guest Associate Editor*, “Special Section on Advances in Adaptive Signal Processing and Applications,” IEICE Transactions on Fundamentals (平成 22 年～23 年)
 8. 電子情報通信学会 信号処理研究専門委員会 委員 (平成 22 年 5 月～現在)
 9. *Guest Associate Editor*, “Special Section on Recent Topics in Signal Processing”, IEICE Transactions on Fundamentals (平成 22 年)
 10. *Associate Editor*, IEICE Transactions on Fundamentals (平成 21 年 5 月～平成 25 年 5 月) (平成 21 年)
 11. *Guest Editor*, “Special Section on Signal Processing”, IEICE Transactions on Fundamentals (平成 21 年)
 12. *Guest Associate Editor*, “Special Section on Fundamental Theories of Signal Processing”, IEICE Transactions on Fundamentals (平成 21 年)
 13. 電子情報通信学会論文誌 (A) 「ブラインド信号処理の技術とその応用」特集号 編集委員 (平成 21 年)
 14. 電子情報通信学会 学生会連絡会 委員 (平成 20 年 5 月～現在)
 15. 電子情報通信学会 東京支部 評議員 (平成 20 年 5 月～現在)
 16. 電子情報通信学会 信号処理研究専門委員会 幹事 (平成 20 年 5 月～平成 22 年 5 月)
 17. *Guest Associate Editor*, “Special Section on Signal Processing”, IEICE Transactions on Fundamentals (平成 20 年)
 18. 電子情報通信学会 信号処理研究専門委員会 委員 (平成 18 年 5 月～平成 20 年 4 月)
 19. *Guest Editor*, “Special Issue on Advances in Blind Signal Processing,” *Neurocomputing* (Elsevier), (平成 20 年)

20. 映像情報メディア学会 査読委員 (平成 17 年～平成 21 年)
 21. *Member*, Technical Committee on Blind Signal Processing, IEEE Circuits and Systems Society (平成 17 年～現在)
 22. *International Program Committee Member*, International Conference on Independent Component Analysis and Blind Signal Separation (ICA 2004) (平成 16 年)
 23. *Local Organizing Committee Member*, International Conference on Independent Component Analysis and Blind Signal Separation (ICA 2004) (平成 15 年)
- Program Committee 委員を各種国際会議 (ICEIC 2014, SCIS-ISIS 2012, APSIPA ASC 2011, ISNN 2011, ISNN 2010, EEEIC 2010, ISBME 2009, APSIPA ASC 2009, CIP 2008, ICA 2006, VISAPP 2006) で歴任.
 - 国内外の学術集会における座長, IEEE などの主要論文誌における査読多数.

9 Invited Talks and Seminars

9.1 Invited Talks

1. 「ブレイン・マシン・インタフェースが拓く脳信号処理の展望」平成 27 年度第三回ブレインウェア工学研究会, 東北大学電気通信研究所, 2015 年 12 月 10 日
2. “Two types of data shrinkage for brain-computer interfaces — Toward small data processing,” Germany-Japan Adaptive BCI Workshop, Kyoto University, Japan, Oct. 28–129, 2015
3. “A Direct Design of Oversampled FIR Filterbanks With Half-Overlapping Yielding Perfect Reconstruction,” Sophia Symposium “Modern Mathematics and Modern Technologies,” 上智大学, Nov. 2008
4. “Principal Wiener Components and Learning on the Stiefel Manifold,” Structural Dynamical Systems (SDS 2006), Monopoli, Bari (Italy)

9.2 会議におけるチュートリアル講演

1. “多様体上における最適化と信号処理,” 電子情報通信学会ソサイエティ大会 基礎・境界ソサイエティ パネル討論「次世代信号処理を切り拓く新しい計算技法」, 2006

9.3 大学等における講演

1. “Rhythmic Component Extraction (RCE): Theory, Algorithm, and Adaptation for EEG Signal Processing,” East China University of Science and Technology (華東理工大学), May 2009
2. “Oversampled Perfect Reconstruction FIR Filter Banks Consisting of 50%-Overlapping Filters: Direct Design Theory and Applications to Blind Signal Separation,” University of Texas, Arlington (USA), Jan. 2006
3. “A Direct Optimal Design of a Class of Oversampled Perfect Reconstruction FIR Filter Banks,” University of Regensburg (Germany), Sept. 2005 (招待講演)

4. "A Direct Design of Oversampled 50% Overlapping Filter Banks Yielding Perfect Reconstruction," Shanghai Jiao Tong University (上海交通大学) (China), June 2005
5. "Denoising of Images With Multiple Subband Transforms," Korea University (高麗大学) (South Korea), Dec. 2004 (招待講演)
6. "On Perfect Reconstruction With Lost Channel Data in a Class of Oversampled Filter Banks," Korea University (高麗大学) (South Korea), Dec. 2004 (招待講演)
7. "Generalized subspace rules for on-line PCA," Korea University (高麗大学) (South Korea), Dec. 2004 (招待講演)
8. "Adaptive Lapped Transforms for Image Coding," Korea University (高麗大学) (South Korea), July 2003 (招待講演)
9. "Orientation Adaptive Lapped Transforms for Image Coding," 理化学研究所 脳科学総合研究センター, July 2002