

05-02-2000

MTV-020.01

Form PTO-1595

RE



U.S. DEPARTMENT OF COMMERCE

(Rev. 6/93)

OMB No. 0651-0011 (exp. 4/94)

Patent and Trademark Office

101341137

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Vanu G. Bose
David L. Tennenhouse
John V. Gutttag
Michael Ismert
Matthew L. Welborn

Additional name(s) of conveying party(ies) attached? () Yes (X) No

2. Name and address of receiving party(ies)

Name: Massachusetts Institute of Technology

Internal Address: _____

Street Address: Five Cambridge Center, Kendall Square
Room NE25-230

City: Cambridge State: MA Zip: 02142-1493

Additional name(s) & address(es) attached? () Yes (X) No

3. Nature of conveyance:

(X) Assignment () Merger
() Security Agreement () Change of Name
() Other _____

Execution Date: 1/9/98, 3/29/95, 1/31/97 and 1/7/99 respectively

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s):

09/231,335

B. Patent No.(s)

Additional numbers attached? () Yes (X) No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Patent GroupInternal Address: Foley, Hoag & Eliot LLPStreet Address: One Post Office SquareCity: Boston State: MA ZIP: 02109-2170

6. Total number of applications and patents involved: (1)

7. Total fee (37 CFR 3.41).....\$ 40.00

(X) Enclosed

() Authorized to be charged to deposit account

8. Deposit account number:

06-1448

(Attached duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Edward J. Kelly Reg. No. 38,936

Name of Person Signing and Reg. No.

Signature

Date

Total number of pages including cover sheet, attachments, and document: (12)

Mail documents to be recorded with required covered sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

364986

PATENT
REEL: 010737 FRAME: 0469

C

Massachusetts Institute of Technology
Inventions and Proprietary Information Agreement

Name (please print or type): Michael Ismet
Social Security No. 521-71-8328

In consideration of:

- * my present or future employment at the Massachusetts Institute of Technology ("M.I.T."); and/or
- * my participation in research at M.I.T.; and/or
- * opportunities made or to be made available to me to make significant use of M.I.T. funds or facilities; and/or
- * opportunities to share in royalties and other inventors/author rights outlined in the "Guide to the Ownership, Distribution and Commercial Development of M.I.T. Technology" dated May 24, 1989 (the "Technology Policy Guide"), I agree:

- A. to disclose promptly and assign to M.I.T. all rights to all inventions, copyrightable materials, computer software, semiconductor maskworks, tangible research property and trademarks ("Intellectual Property") conceived, invented, authored, or reduced to practice by me, either solely or jointly with others which:
 - (i) are developed in the course of or pursuant to a sponsored research or other agreement in which I am a participant as defined in Paragraph 2.1.1 of the Technology Policy Guide; or
 - (ii) result from the significant use of M.I.T. funds or facilities as "significant use" is defined in Paragraph 2.1.2 in the Technology Policy Guide; or
 - (iii) result from a work-for-hire funded by M.I.T. as defined in Paragraph 2.1.3 of the Technology Policy Guide; and
- B. to execute all necessary papers and otherwise provide proper assistance, at M.I.T.'s expense, during and subsequent to the period of my M.I.T. affiliation, to enable M.I.T. to obtain, maintain or enforce for itself or its nominees, patents, copyrights or other legal protection for such Intellectual Property; and
- C. to make and maintain for M.I.T. adequate and current written records of all such M.I.T. Intellectual Property; and

- D. to deliver promptly to M.I.T. when I leave M.I.T. for whatever reason, and at any other time as M.I.T. may request, copies of all written records referred to in Paragraph C. above as well as all related memoranda, notes, records, schedules, plans or other documents, made by, compiled by, delivered to, or manufactured, used, developed or investigated by M.I.T., which will at all times be the property of M.I.T.; and
- E. not to disclose to M.I.T. or use in my work at M.I.T. (unless otherwise agreed in writing with M.I.T.):
- (i) any proprietary information of any of my prior employers or of any third party, such information to include, without limitation, any trade secrets or confidential information with respect to the business, work or investigations of such prior employer or other third party; or
 - (ii) any ideas, writings, or Intellectual Property of my own which are not included in Paragraph A. above within the scope of this Agreement (please note that inventions previously conceived, even though a patent application has been filed or a patent issued, are subject to this Agreement if they are actually first reduced to practice under the circumstances included in Paragraph A. above),

This Agreement replaces all previous agreements relating in whole or in part to the same or similar matters which I may have entered into with M.I.T. It may not be modified or terminated, in whole or in part, except in writing signed by an authorized representative of M.I.T. Discharge of my undertakings in this Agreement will be an obligation of my executors, administrators or other legal representatives or assignees.

I represent that, except as identified on the reverse side hereof, I have no agreements with or obligations to others in conflict with the foregoing.

Witness



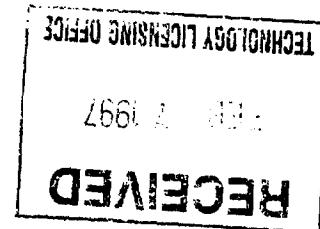
Signature (To include first name in full)



Date

Note: A detailed discussion of M.I.T.'s policy related to intellectual property is outlined in the "Guide To the Ownership, Distribution and Commercial Development of M.I.T. Technology" referenced above. This document is available upon request from the Technology Licensing Office.

(To be made out and signed in triplicate. Distribution: original copy to the employee's personnel file; second copy to the employee; and third copy to the Technology Licensing Office.)




Massachusetts Institute of Technology
Inventions and Proprietary Information Agreement

David L. Tennenhouse

Name (please print or type): David L. Tennenhouse
Social Security No. (Not a Valid Purpose to Require SSNs)
(See MIT Privacy Committee)

In consideration of:

- * my present or future employment at the Massachusetts Institute of Technology ("M.I.T."); and/or
- * my participation in research at M.I.T.; and/or
- * opportunities made or to be made available to me to make significant use of M.I.T. funds or facilities; and/or
- * opportunities to share in royalties and other inventors/author rights outlined in the "Guide to the Ownership, Distribution and Commercial Development of M.I.T. Technology" (the "Technology Policy Guide"), I agree:
 - A. to disclose promptly and assign to M.I.T. all rights to all inventions, copyrightable materials, computer software, semiconductor maskworks, tangible research property and trademarks ("Intellectual Property") conceived, invented, authored, or reduced to practice by me, either solely or jointly with others which:
 - (i) are developed in the course of or pursuant to a sponsored research or other agreement in which I am a participant as defined in Paragraph 2.1.1 of the Technology Policy Guide; or
 - (ii) result from the significant use of M.I.T. funds or facilities as "significant use" is defined in Paragraph 2.1.2 in the Technology Policy Guide; or
 - (iii) result from a work-for-hire funded by M.I.T. as defined in Paragraph 2.1.3 of the Technology Policy Guide; and
 - B. to execute all necessary papers and otherwise provide proper assistance, at M.I.T.'s expense, during and subsequent to the period of my M.I.T. affiliation, to enable M.I.T. to obtain, maintain or enforce for itself or its nominees, patents, copyrights or other legal protection for such Intellectual Property; and
 - C. to prepare and maintain for M.I.T. adequate and current written records of all such M.I.T. Intellectual Property; and

- D. to deliver promptly to M.I.T. when I leave M.I.T. for whatever reason, and at any other time as M.I.T. may request, copies of all written records referred to in Paragraph C. above as well as ~~all related memoranda, notes, records, schedules, plans or other documents, made by, compiled by, delivered to, or manufactured, used, developed or investigated by M.I.T., which will at all times be the property of M.I.T.;~~ and 
- E. not to disclose to M.I.T. or use in my work at M.I.T. (unless otherwise agreed in writing with M.I.T.):
- (i) any proprietary information of any of my prior employers or of any third party, such information to include, without limitation, any trade secrets or confidential information with respect to the business, work or investigations of such prior employer or other third party; or
 - (ii) any ideas, writings, or Intellectual Property of my own which are not included in Paragraph A. above within the scope of this Agreement (please note that inventions previously conceived, even though a patent application has been filed or a patent issued, are subject to this Agreement if they are actually first reduced to practice under the circumstances included in Paragraph A. above),

This Agreement replaces all previous agreements relating in whole or in part to the same or similar matters which I may have entered into with M.I.T. It may not be modified or terminated, in whole or in part, except in writing signed by an authorized representative of M.I.T. Discharge of my undertakings in this Agreement will be an obligation of my executors, administrators or other legal representatives or assignees.

I represent that, except as identified on the reverse side hereof, I have no agreements with or obligations to others in conflict with the foregoing.

Rachel Bredemeier
Witness

David R. Tomanchuk
Signature (To include first name in full)

31 Jan 97
Date

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(To be made out and signed in triplicate. Distribution: original copy to the signatory's personnel file; second copy to the signatory; and third copy to the Technology Licensing Office.)

RECEIVED

JAN 12 1999

TECHNOLOGY LICENSING OFFICE

Massachusetts Institute of Technology
Inventions and Proprietary Information Agreement

Name (please print or type): MATHEW L. WELBORN
Social Security No. 364-84-5784

In consideration of:

- * my present or future employment at the Massachusetts Institute of Technology ("M.I.T."); and/or
- * my participation in research at M.I.T.; and/or
- * opportunities made or to be made available to me to make significant use of M.I.T. funds or facilities; and/or
- * opportunities to share in royalties and other inventors/author rights outlined in the "Guide to the Ownership, Distribution and Commercial Development of M.I.T. Technology" (the "Technology Policy Guide"), I agree:

- A. to disclose promptly and assign to M.I.T. all rights to all inventions, copyrightable materials, computer software, semiconductor maskworks, tangible research property and trademarks ("Intellectual Property") conceived, invented, authored, or reduced to practice by me, either solely or jointly with others which:
- (i) are developed in the course of or pursuant to a sponsored research or other agreement in which I am a participant as defined in Paragraph 2.1.1 of the Technology Policy Guide; or
 - (ii) result from the significant use of M.I.T. funds or facilities as "significant use" is defined in Paragraph 2.1.2 in the Technology Policy Guide; or
 - (iii) result from a work-for-hire funded by M.I.T. as defined in Paragraph 2.1.3 of the Technology Policy Guide; and
- B. to execute all necessary papers and otherwise provide proper assistance, at M.I.T.'s expense, during and subsequent to the period of my M.I.T. affiliation, to enable M.I.T. to obtain, maintain or enforce for itself or its nominees, patents, copyrights or other legal protection for such Intellectual Property; and
- C. to prepare and maintain for M.I.T. adequate and current written records of all such M.I.T. Intellectual Property; and

- D. to deliver promptly to M.I.T. when I leave M.I.T. for whatever reason, and at any other time as M.I.T. may request, copies of all written records referred to in Paragraph C. above as well as all related memoranda, notes, records, schedules, plans or other documents, made by, compiled by, delivered to, or manufactured, used, developed or investigated by M.I.T., which will at all times be the property of M.I.T.; and
- E. not to disclose to M.I.T. or use in my work at M.I.T. (unless otherwise agreed in writing with M.I.T.):
- (i) any proprietary information of any of my prior employers or of any third party, such information to include, without limitation, any trade secrets or confidential information with respect to the business, work or investigations of such prior employer or other third party; or
 - (ii) any ideas, writings, or Intellectual Property of my own which are not included in Paragraph A. above within the scope of this Agreement (please note that inventions previously conceived, even though a patent application has been filed or a patent issued, are subject to this Agreement if they are actually first reduced to practice under the circumstances included in Paragraph A. above),

This Agreement replaces all previous agreements relating in whole or in part to the same or similar matters which I may have entered into with M.I.T. It may not be modified or terminated, in whole or in part, except in writing signed by an authorized representative of M.I.T. Discharge of my undertakings in this Agreement will be an obligation of my executors, administrators or other legal representatives or assignees.

I represent that, except as identified on the reverse side hereof, I have no agreements with or obligations to others in conflict with the foregoing.

Heather L. McConley
Witness

Matthew Wilkins
Signature (To include first name in full)

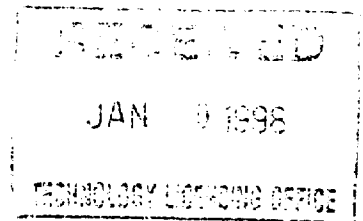
1-7-99
Date

Note: A detailed discussion of M.I.T.'s policy related to intellectual property is outlined in the "Guide To the Ownership, Distribution and Commercial Development of M.I.T. Technology" referenced above. This document is available upon request from the Technology Licensing Office.

(To be made out and signed in triplicate. Distribution: original copy to the signatory's personnel file; second copy to the signatory; and third copy to the Technology Licensing Office.)



Instructions on using this form.



M.I.T. Technology Disclosure

Case No. (this space for TLO use only) 79305

1. TITLE OF INVENTION

VIRTUAL RADIOS

2. PLEASE ATTACH DESCRIPTION OF TECHNOLOGY

3. Inventors(s) Position Department/M.I.T. Room No. & Extn.

VANU G. BOSE (Vanu@lis.mit.edu)

DAVID L. TENNEWHOUSE NE43-509-3-6055 SR Res-Sci.

JOHN V. GUTAG NE43-515 x 3-6022 Prof.

MICHAEL ISMERT NE43-506-3-0960 Tech. Staff.

4. Was this invention developed with the use of any research grant/contract funds?

Yes ☒ No ☐

Contract No(s). Sponsor(s) O.S.P. Project No(s). Principal Investigator

Please note that accurate and complete sponsorship information is necessary to fulfill M.I.T. obligations under research contracts.

5. If no contract or CRDA, was there significant use of M.I.T. funds or facilities as defined in the instructions? Yes ☐ No ☐

6. DATES OF CONCEPTION and PUBLIC DISCLOSURE (Accurate data is essential as prior disclosure may affect the possibility of obtaining patent rights. For references/comments, please include names of periodicals/journals - use separate sheet if necessary)

A. Date of conception of invention. Has this date been documented? If so, where?

Date 9/95 References/Comments Notebook

B. First publication containing sufficient description to enable a person skilled in this field to understand and to make or use the invention (include theses, and the date submitted)

~~APRIL 1998~~ (INFO COMM paper)

Date 4/98 ~~No~~ References/Comments Intcomm

C. First public oral disclosure of invention sufficient to enable a person skilled in this field to understand and to make or use the invention.

Date None ~~4/98~~ ~~8~~ References/Comments _____

D. If unpublished and undisclosed, provide the anticipated publication or oral disclosure date and any submissions made for potential publication.

Date 4/98 References/Comments Intcomm

7. Has the invention been reduced to practice? Yes ☒ No ☐ If yes, please give date of first reduction to practice 8/97

8. Please attach a list of any commercial entities that may be interested in this invention. (provide as much detail as possible) Bell South, Intel, Nokia, Motorola, Analog Devices

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.

I (We) hereby agree to assign all right, title and interest to this invention to M.I.T. and agree to execute all documents as requested, assigning to M.I.T. our rights in any patent application filed on this invention, and to cooperate with the M.I.T. Technology Licensing Office in the protection of this invention. M.I.T. will share any royalty income derived from the invention with the inventor(s) according to its standard policies.

Inventor's Signature Von Bose Date 1/9/98

Home Address 100 Memorial Dr. Apt. 11-21A

Social Security No. (required) 010 56 8816 Country of Citizenship USA

Inventor's Signature J. V. Mantua Date 1/9/98

Home Address 273 Emerson Road

Social Security No. (required) 127-36-2429 Country of Citizenship USA

Inventor's Signature (Fennelhouse) Date 1/9/98

Home Address 7717 Curtis St., Chevy Chase MD

Social Security No. (required) 028-70-6031 Country of Citizenship USA & Canada

Inventor's Signature _____ Date _____

Home Address _____

Social Security No. (required) _____ Country of Citizenship _____

Please note that Social Security number and country of citizenship are required and that the absence of this information may hinder distribution of the inventors' share of any royalties that may result from this technology. If there are more than four inventors, please attach additional form.

Technology Disclosed and understood by:

Signature of Non-Inventor Witness _____

Date _____

Name and Title of Witness (please type or print) _____

(For M.I.T.: Principal Investigator should sign if s/he is not inventor. For Media Lab: Director's signature is required. For Lincoln Laboratory: Division Head's signature required.)

When completed submit to:
Technology Licensing Office
Room NE25-230, 253-6966

(1/20/94)

